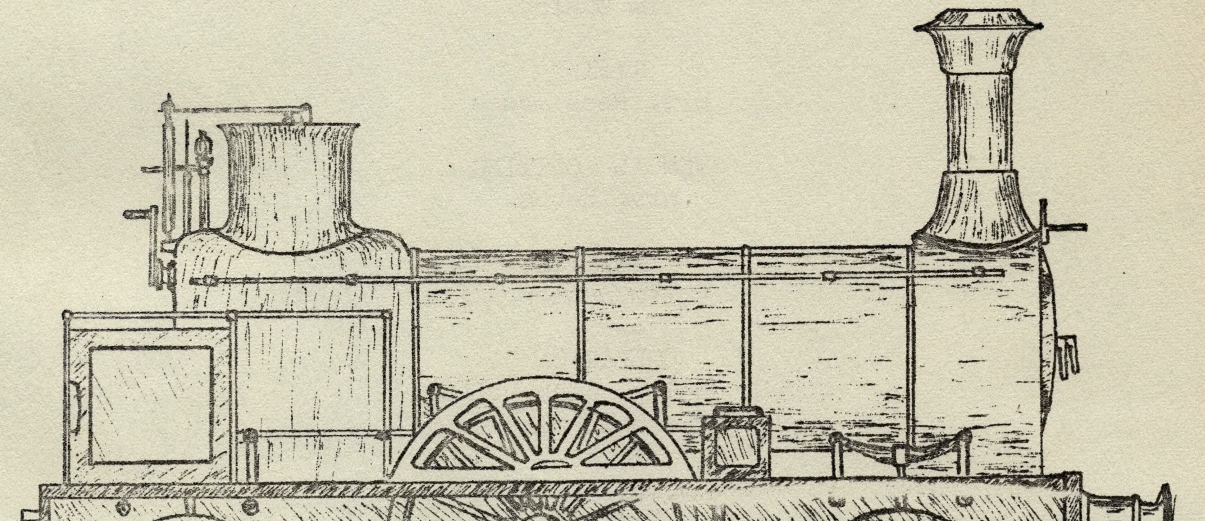
AMRA
JOURNAL

ISSUE FOR
MAY
1961



NUMBER
40

JOURNAL
of
The Australian Model Railway Association

Page 2.
May, 1961.

Volume 11 No.2.
Consecutive Issue No. 40

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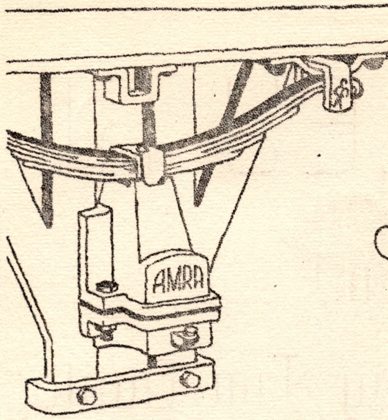
ON THE COVER

This 2-2-2 loco, built by George England and Co. of Hatchem Ironworks, London, in 1857, was the No.1 loco of the Victorian Railways, and pulled the first official train to run between Melbourne and Williamstown.



Editorial . . . JOURNAL BOX . . .

On page 16 of this issue you will find an analysis by Jack McLean of the questionnaire circulated to each member about six months ago. Probably a good many intended to fill in their forms and then never got around to it, but 106 members, nearly half our total membership, actually made the grade and what is more, returned them. That's better than the Federal Committee gets for the annual election ballot papers, so readers, you may take a bow, especially the thirty odd characters (yes, thirty) who said they would contribute to Journal!

As far as this page is concerned, our chief interest lies, of course, in what people think of Journal. Replies included a good many constructive suggestions, which will be dealt with later, and opinions ranged from "satisfactory" and "interesting", through "good" and "very good" to "excellent" with by far the greatest number falling into the last two categories. Similarly, the great majority said they "read all of it"; some found ten or twenty per cent of no interest to them and a few said they read only a half or two-thirds. There was really only one dissentient voice, and he shall remain nameless.

Support for prototype and historical articles was surprisingly high but requests for more constructional articles were numerous, indicating that scratch building is still a popular pastime even in these days of plastic kits and ready to roll items. Perhaps it is worth quoting here in full the remarks added by one member to his sheet of questions and answers where he says: "We must not lose sight of the fact that AMRA consists of PEOPLE. The fellowship which exists between members is strongest where there are conflicting views, and we must all be willing to have in our "Journal" some material which is not on our own pet subject. The greatest difficulty seems to be to inspire members to write for members, in "Journal", about those aspects of their own pet topics in which they have overcome some difficulty or gained some satsifaction. I don't think the editor has ever had surplus articles".

Well, that last remark is true enough; we've never had any surplus articles. Actually, we've been surprisingly lucky because those articles that have come in have covered a pretty wide range of subjects with the result that we've usually been able to provide a fairly well balanced Journal, with a little bit of prototype, something constructional, something historical, and whenever possible, some accounts of modellers' layouts. What we print depends entirely on what we get, but it's reassuring to know that there are plenty of readers welcoming all these types of articles, especially when the prototype articles have "a modelling slant".

HAPPY VALLEY R.R.

(Southern Division)

by Tim Dunlop

In all the years I have enjoyed 'playing trains', I have built or helped to build some half dozen layouts. The first two were in '0' gauge, one of which was in the back yard of my parents' home, where it was too cold, and the second in the attic, where it was too hot! Thereafter, married life and a succession of flats prevented any work on a layout, but rolling stock and motive power was slowly accumulated against the day when a layout would be built.

A start was made when building began on a 7'6" by 4'6" layout which was hinged to the wall, but this was sold before I completed it. Shortly after this, I bought a layout from Mark Traylen, which measured 9'6" by 7'6". This was a beauty; track all laid, scenery all done, and it only required wiring to get it going. The major difficulty with this layout was that I had to clear the lounge room every time I wished to 'play trains'. Eventually, I decided to sell it and wait until time, and money, permitted the erection of a shed to house the layout-to-be. During all this time, I had been gaining a great deal of experience in trackwork, point making and other sides of the hobby, both practical and theoretical.

As I am the printer of the Journal, I had an early look at Jack McLean's article "Blossoms in the Dust" which came in the February 1961 issue, and that rang a bell. My wife came from Red Cliffs, and that was a great help in deciding to make a portable layout based on the idea mentioned in Jack's article. It had to be portable, as I still had no space for a permanent layout, but I did have space to store sections of a portable layout. After surveying the house, I found that I could run down the passage-way for 23 feet, across the dining room for 11 feet and back into the lounge room, for another 23 feet. This would give me 57 feet, and I felt this would be enough to employ the three station layout mentioned in Jack's article. I decided to make open framework sections, each no larger than 72" long by 18" wide. Having decided to go ahead, I obtained the timber to make the two sections which would comprise the station at 'Mildura', and proceeded with construction.

Two open framework sections were made up, one 6'0" long, and the other 4'6" long. They were so joined together that all track bases and track could be prepared without having to go to the trouble of separating and then joining them each time I had an opportunity of working on them. The side bearers of each section were made from second hand case timber, cut and dressed to 2" by 5/16". The cross members were also from second hand case timber, roughly 1½" by 5/16" to 3/8" thick, and 18" long. The two side bearers for each section were clamped together and cut to length and the centres of the cross members, at 7" to 8" centres were marked on each side bearer.

Where two sections join, I left six inches between the end of the side bearer and the first cross member and then divided the remaining space into equal distances. The centres of the cross members were then marked on each side bearer, at roughly 7" to 8" intervals. The six inch space at the ends were left to permit a 12" joiner plate to be screwed over the join. Using a carpenter's square, I then ruled centre lines right up the inner faces of the side bearers, and about three-quarters of the way up the outsides of the bearers. Two flat headed 1" nails were then driven through the side bearers on the centre line for each cross member until the points were just through on the inside face of the bearer. The nails are roughly about 1" apart; there is no need to be accurate at this stage of the game, unless you wish to be, of course.

Nails by themselves are not sufficient to hold the frames together. The perfectionists may advocate screws, so use them if you wish, but I have found that two nails will do the job with the aid of an adhesive called "Graspall". This stuff is really mighty. Two scrap pieces of wood were joined with "Graspall"; the next day, the two pieces were forcibly parted. The timber broke, but not the joint! I found it convenient to assemble the cross members to the side bearers and lightly drive the nails in, after making sure that the bottom of the cross member was level with the bottom of the side bearer, and that the cross members were plumb and square. I then separated all the pieces, and taking one side bearer, and one end of each cross member, coated all surfaces to be joined with "Graspall". It does not need to be thick. I dobbed the adhesive on and then scraped the surplus off with a smooth stick.

As you have already started the nails, place the points of the nails in the respective holes in the ends of the cross members in turn and drive the nails home. Repeat the whole operation with the other side bearer. Without wasting too much time, square up the section of framework before the adhesive dries, and, once you are satisfied, set it aside carefully to dry out. As a matter of fact, you will find that it is better to square it up where you are going to leave it to dry. After all this effort, you will finish up with open framework sections as in Fig. 1. You do not have to adhere to the dimensions I have given; after

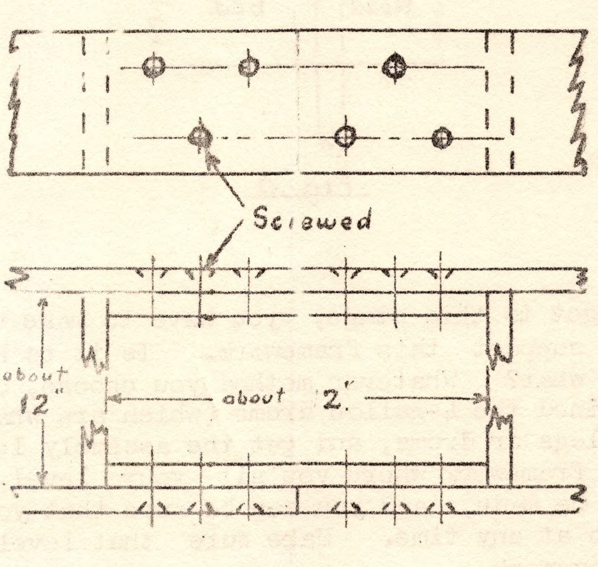


Fig 1

all, it is your layout, and you build it to suit yourself.

My next step was to set out the centre lines of the various tracks on the cross members. Scrap pieces of timber $1\frac{3}{4}$" wide by about $\frac{3}{8}$" thick, but all 3" long (for single track) were then prepared to act as vertical risers. Naturally, where two or more tracks run parallel to each other, the riser or upright can be made wide enough to support the number of tracks concerned. My idea in using these was to elevate the track so that scenic effects could be added at a future date, and wiring would be easier to handle.

After the risers were all completed, in their various widths, the two sections which were to comprise the 'Mildura' end of the layout were joined. The ends of the side bearers were butted together and two joiner plates cut, to fit as exactly as possible between the two end cross members. Have a look at Fig. 2. After you have made sure that both sections are in the same plane, clamp the joiner plates to the side bearers and check again. Drill holes for the screws, I used three $\frac{5}{8}$" by 6 gauge screws on either side of the join, in the positions indicated in Fig. 2. The screws actually come through from the outside, but I have shown them on the inside for clarity. Really, it doesn't matter which way you put them in, but from the outside should prove the most convenient.

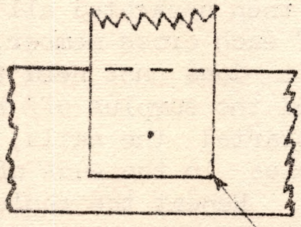


Fig 2

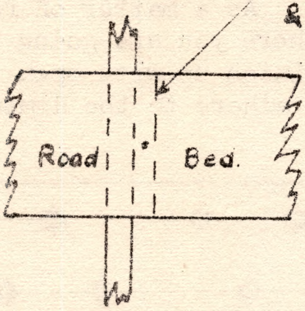


Fig 3

Now, having got to this stage, you have to make up your mind how you are going to support this framework. Is it to be folding legs, 4-gallon drums or what? Whatever method you choose, once you have made the legs, or obtained the 4-gallon drums (which are what I used) set the framework on the legs or drums, and get the assembly level. A tip here is to mark on the framework where you sit your level. Any future assemblies can then be made, and you can be sure that your original level will be adhered to at any time. Make sure that levels are taken along and across the framework.

Having a supply of uprights, 1" flat-head nails,"Graspall" and your framework level, you can now proceed to glue the uprights in position. Drive nails through the uprights about $\frac{1}{2}$" from the bottom, until the point just shows. With one or more clamps, clamp the first upright to the end cross member at the desired height and in the right position to support that section of track base. Mine were about $2\frac{1}{2}$" above the cross member. As you did with the assembly of the frames, start the nail (in the upright) into the cross piece. Remove, coat both surfaces with adhesive, place in position, drive the nail home, square the upright, in other words, make sure it is vertical, and also level from side to side.

Take a bit of care, with this first upright, as this becomes the datum for all the other uprights. I found it advisable to leave at least one clamp on each upright until the glue sets. This will slow you up a bit, unless you have more clamps than I have. The remainder of the uprights may now be fixed in position; use your level to ensure that they are at the same height as the first one. I clamped each successive upright to the cross piece, not too tightly, but firmly, until it was in the correct position, tightened the clamp, tapped the nail in lightly to mark the spot, removed the upright, glued both surfaces, clamped back in position, drove the nail home, checked again to make sure the upright was square and left to dry.

When you have finally managed to get all the uprights fixed, the next step is to prepare the track base. This was of similar material to the side bearers. With a carpenter's marking gauge, I marked four lines on each piece of the track base. Two lines were $\frac{5}{8}$" from the edge and the other two were $\frac{3}{8}$". The inside pair of lines acted as a guide for the sleeper laying, and the two outside lines acted as limits for the ballast. Having completed this operation on the necessary number of pieces of track base, which of course have been cut to the correct length for each framework, you are ready to fix them in position. If you are not sure of the length, normally they will be the same length as the side bearers, which will serve as a guide for you. You can now proceed to fix the track bases in position, following your track plan and uprights,by nailing them to the uprights with a large pin, and of course using "Graspall". Fig. 3 will give you some idea of how all this finishes up.

You will find that the open framework is remarkably light,'Mildura" is 10'6" by 1'6", and I can lift it with one finger! That should keep you budding builders quiet for a bit. Space, and the Editor, permitting in the next issue (You're joking, Tim) I hope to offer some thoughts on ballast, sleepers and track laying, so get to it. Don't come to me saying it costs too much, or you have no room. You can fit three 6' by 1'6" sections under the bed,and that gives you 18' of track when assembled, if it is only single track, more for extra tracks. Interested?

TRANS-EUROP FREIGHT

A freight train network similar to the T.E.E. passenger trains is now being organized. The new services are to be given the name Trans Europ Express Marchandises (TEEM) and will link the most important production and consumption centres in Western Europe.

A COUPLER IS BORN

by Norm Read

Some time ago Harold Warren and I had several discussions on the subject of couplers and as a result of much thought and experiment he one day brought along to a Saturday meeting the fruits of his efforts in the shape of a new style of coupling, something on the lines of the Baker type. From there I took over for further testing which involved a great deal of time, but I was determined to get things moving as it was high time we really had a reliable '0' gauge coupler and uncoupler. The main problem was getting maximum lift on the hook end with a minimum movement of the lifting pin. This entailed trying out many shapes and sizes and increasing the length in the slot of the main body. The finished product is shown in the illustration.

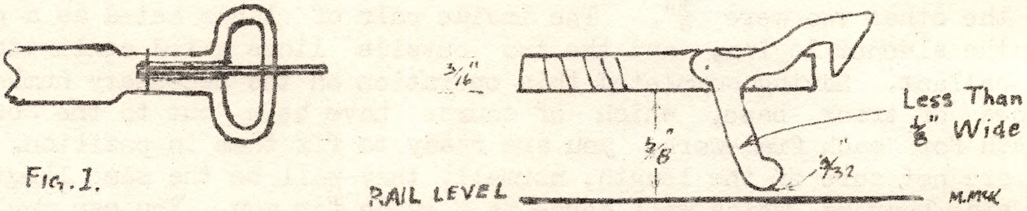


Fig. 1.

Having completed the design it went back to Harold who altered the mould he had made for casting the main body of the coupling and then made the dies for punching out the hook. When the moulding die was finished Sid Lothian and I went ahead and cast a batch. As a result of the first run a couple of minor modifications were made, mainly in the air escapes, and once more we went into production and after a while developed quite a rhythm.

When the casting is cool a small amount of flashing has to be cleaned off; it is then fitted into a jig for drilling the hole for the fixing pin for the hook. Next Harold finished making the punching dies and knocked out a large quantity of hooks which he brought over for the next step. This consisted first of flattening them out again, as they developed a slight twist in the punching, and then fitting them into a jig for drilling.

The next job is pinning the two parts together. Sid does this at home at night and says he gets sore fingers pressing the pin through the holes. But when this has been done the couplers are now ready for fixing to the vehicles.

On four wheeled stock the coupler is fixed by a screw to the flooring. A length of spring wire is soldered to the coupler to extend to the centre of the vehicle and is secured by some suitable means. The coupler is fixed to give a slight bias to the left; the hook already is offset in the coupler. The distance of projection beyond the body depends on the vehicle itself, according to whether it is fitted with buffers or any other projections which would foul on curves.

On bogie vehicles, it is better to mount the couplers to the bogies. To do this I use a strip of hard brass $\frac{1}{2}$" wide by $1\frac{3}{4}$" long. On "O" Gauge House bogies one end of the strip is bent at a right angle $\frac{1}{8}$"deep. The strip is placed on the bogie stretcher; a mark is then made for the centre pin and a hole is drilled to suit. This must make a tight fit to the stretcher allowing no swing.

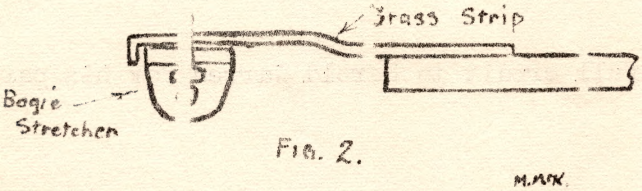


Fig. 2.

Brass strip may be set upwards or downwards for correct coupler height. Coupler soldered over or under strip to give $\frac{5}{8}$ clearance between bottom of coupler & rail.

At this stage I made a useful template from a block of wood about 2" square and $\frac{5}{8}$" high with a slot out on one side and a piece of metal 3/16" high projecting about an inch on the other. When the vehicle to be fitted with the coupling is placed on a piece of track, this template is placed on the rail and it is easy to see whether any cutting out of the body is necessary, or what packing is required to fix the coupler on to the flooring on four wheelers, or what amount of "set" is required to the brass strip on the bogie. The "set" may be up or down, depending on whether it is more suitable to solder the coupler on to the top of the strip or underneath it. Once again the distance the coupler will extend beyond the buffer beam depends on the radius of curves used and whether buffers are fitted or not and must be determined by experience.

When fixing the bogie finally it is a good idea to slip a small spring under the head of the fixing pin;this presses the bogie stretcher against the strip and the body and keeps the coupler at the right height without "slop". On B.P.R. bogies, I file the shoulder off the bogie stretcher and solder the brass strip in its place. On Fleet bogies, I first of all slip two chocks in between the stretchers and then drill a $\frac{1}{4}$" hole in the bottom piece which allows the fixing screw to fall out. I next scrape the bottom of the top stretcher, tin it well and then solder the brass strip in position after making the right "set" in it.

On Fleet passenger bogies it is necessary to file or grind part of the channel piece across the end of the bogie away,to give the necessary clearance. This has to be done with some care or the fixing lugs in the bogie ends may snap off. Again, on all bogies, the couplers require a slight bias to the left; this not only makes it easier for coupling on curves, but stops too much side pressure on the hooks when uncoupling goes on.

When properly fitted these couplers will be found very reliable and will couple very easily. I have fitted over two hundred vehicles so far although I must admit that in the rush I have not always done it strictly according to the book; this sometimes leads to the hooks on some vehicles coupling on the wrong side of one another which can result in derailing or in failure to uncouple, due to too much side pressure.

The ramps I have used on a third rail system were brass, about 2½" long, 5/8" wide, and shaped as illustrated. At first sight these couplers look a little too large, but when they are fitted and blackened they diminish in size. And what a change it is to run a train without break aways and what fun there is to be had in marshalling!

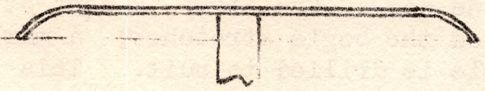


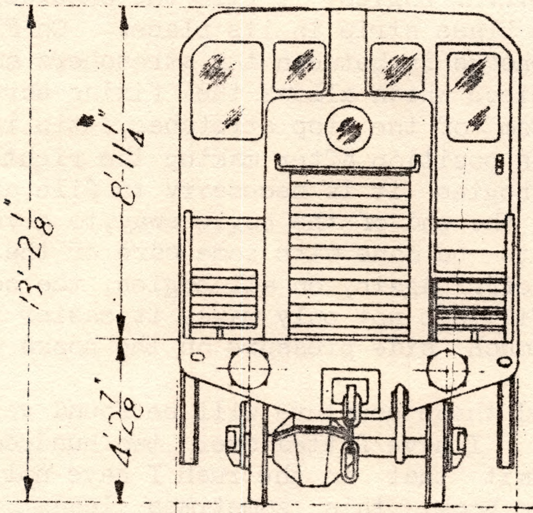
Fig. 3. Guide Bar. M.H'K.

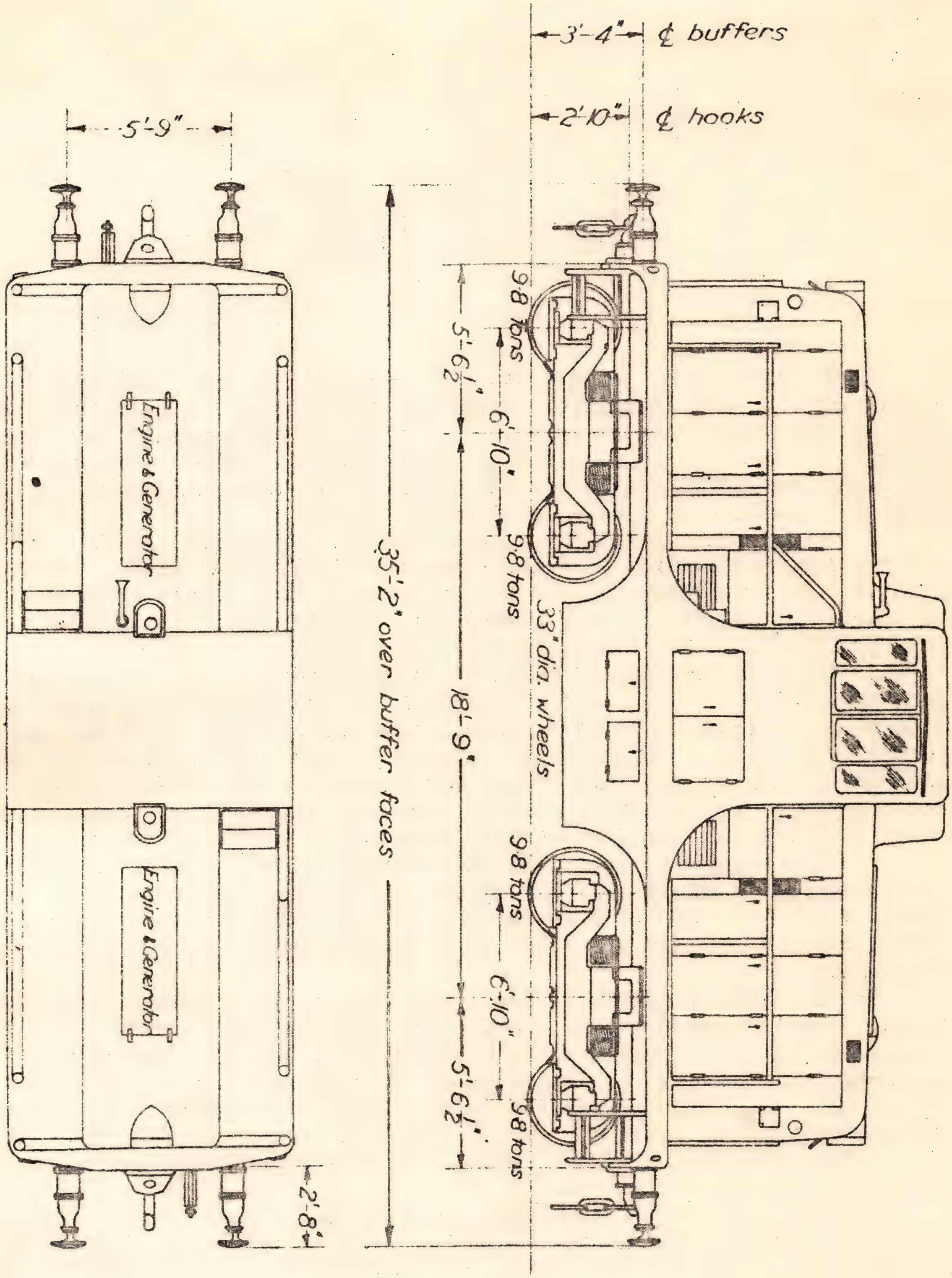
In conclusion I must give full credit to Harold Warren for his part in "Operation Coupler".

PROTOTYPE

To those who are running both American and European stock on the same layout, be happy; you have a prototype reason for this now. One of the private railways in Spain, the Langreo Railway, Spain's only 4'8½" gauge line, has imported a number of 2-8-0's from, of all places, Alaska, and hopper cars from the Erie. These cars are complete up to the Erie herald except that the car numbers have been painted over.

ERN RADDATZ





G.E. DIESEL-ELECTRIC SHUNTING
LOCOMOTIVE
NSWTD CLASS 79

Tri-ang

L1

MODIFICATION

by Frank Puls

After purchasing the new Triang 4-4-0 L1 loco I found that the leading driving wheels carried nearly all the weight and also that they bore all the thrust on the curves, causing a lot of overhang and jerky movement on the fifteen inch radius Hornby 'Dublo' curves. However with the front bogie modified in the way described in the illustration I now find that the loco is gently led into the curve.

A word of warning though. Since some of the weight has been taken off the leading drivers the wheels are more inclined to slip. However this is a minor problem and for the present I shall couple fewer wagons or coaches to it until I have worked out a way to get some more ballast into the limited space available inside the model.

In the illustration the model is shown standing on a long length of rail projecting over the edge of a table. The other end is held down with a house brick. This is to facilitate adjustments. Test the model from time to time. If the bogie derails, check to see if enough side play has been allowed; also check for absence of oil. When replacing the body there may be some need for further filing of the "saddle" as there is little room inside the body recess.

The wheels of this loco will pass through Hornby frogs running on the flanges. I cleaned off the maker's paint from the grooves near the frogs with the aid of a two inch piece of hacksaw blade. The loco wheels did not require any turning or back-to-back adjustment as the tender did.

FITTING PECO COUPLINGS TO THE TRIANG 4-4-0 L1 TENDER: Hold the tender in an inverted position and gently tap out the "coal". In recess the screw is loosened and the tender falls apart. Remove the six tender wheels, unscrew the Triang coupling, then check out a small section to take the Peco conversion set. Take this rebate to the red buffer-stops and no further. Drill the three holes and fix the coupling in the usual way. Then replace the wheels and test the tender by running it through the points.

If the unit is to be used on Hornby two-rail track and you wish to retain the Triang wheels you may like to try a method of turning the flanges which I use for both Triang and Trix stock to be intermixed with Hornby and Peco.

I set up a small hand drill mounted on a vice, fit one of the wheels into the chuck (not too tightly), set the drill going and hold coarse sandpaper to the top of the flange, keeping a clean edge always against the wheel. Check the depth from time to time and when the required depth is reached, sharpen the flange from the inside as this will adjust the back to back measurement to suit Hornby points.

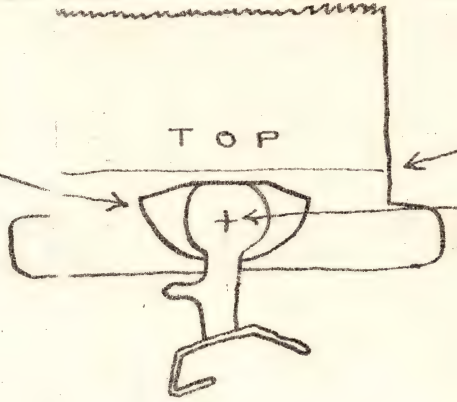

SHEET BRASS CUT AND FILED AND SOLDERED TO PECO COUPLING
TOP
STEP
RE DRILL HOLE THRU COUPLING 1/8" CLEAR.
TAP 1/8" HOLE THRU CASTING

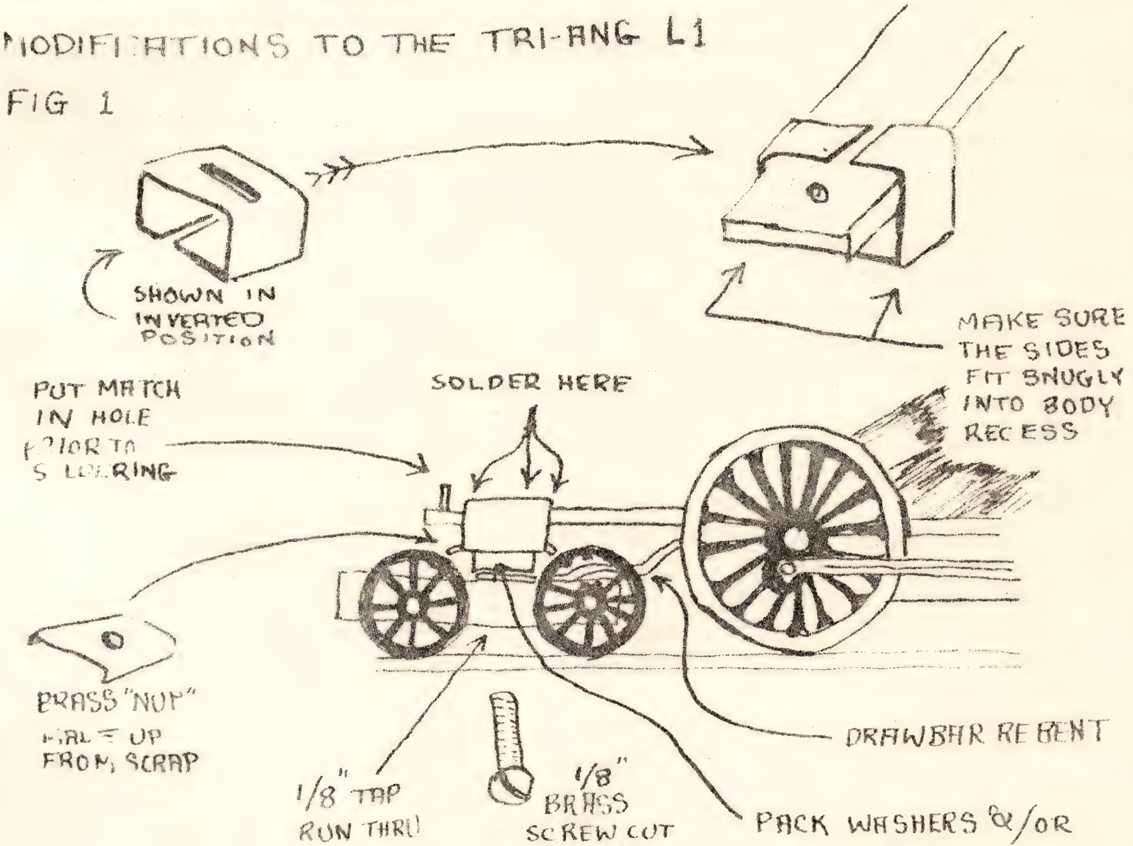
FIG 2:
FITTING PECO COUPLERS

JMP.

ABOVE DIAGRAM SHOWS FRONT SECTION OF THE FRONT BOGIE OF THE TRI-ANG 4-4-0 TYPE L1 LOCOMOTIVE. THE SHEET BRASS IS CUT IN THE ABOVE SHAPE TO ALLOW A LITTLE, BUT NOT TOO MUCH PLAY

MODIFICATIONS TO THE TRI-ANG L1

FIG 1


SHOWN IN INVERTED POSITION
MAKE SURE THE SIDES FIT SNUGLY INTO BODY RECESS
PUT MATCH IN HOLE PRIOR TO SOLDERING
SOLDER HERE
BRASS "NUT" MADE UP FROM SCRAP
DRAWBAR REBENT
1/8" TAP RUN THRU HOLE
1/8" BRASS SCREW CUT TO LENGTH
PACK WASHERS &/OR WASHERS UNTIL DRIVER ONLY JUST TOUCHES RAIL

MP.

AN EXHIBITION LAYOUT
GOLDEN HILLS FESTIVAL RAILWAY

by Llew Joslin

Five weeks before Christmas the organizers of the Golden Hills Festival stated that they wished to have a Hobbies Section and Geoffrey Barnes, Rex Norman and myself were approached to build or display a model railway. After we had explained to them that it was impossible to wreck our own model railways and to re-erect them the committee agreed to cover the cost of the base board. The room we were to occupy was inspected and it was found that a 12' x 4'6" base board would fit with plenty of room for extras.

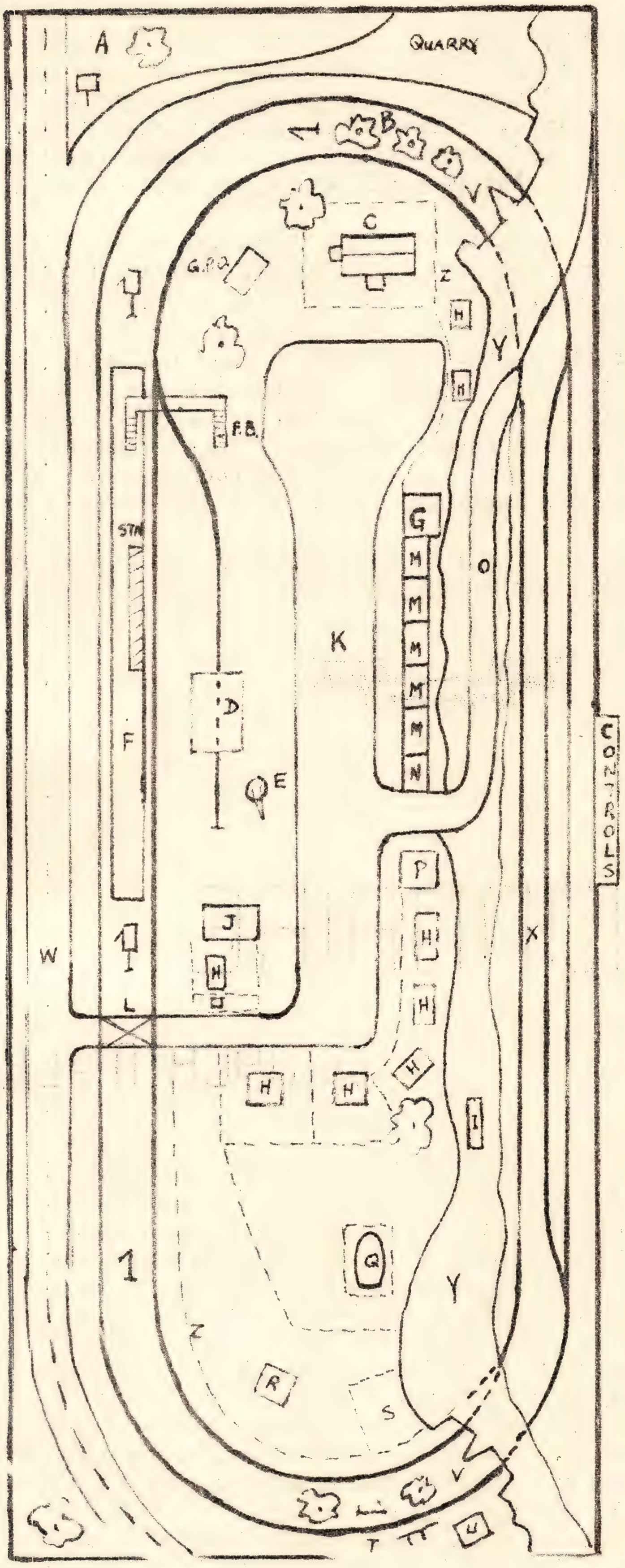
The base board was built in two sections both being 6' x 4'6". The framework was of 2" x 1" timbers set in the form of a "TT" with a ½" cane covering. The lot was braced outside with 3" x 1" timber, making it very rigid as it was to be stored under the Town Hall, in the cell where Ned Kelly was held after his capture.

The base board arrived from the joiners two days later and was set up at Rex Norman's home. As you may see from the track plan the main scenery was to be a row of hills with storage sidings behind. The track plan was roughed on to the surface and Rex started the scenery. The hills were built by the usual method of cane forms covered with plaster and dyed sawdust. A road was left angling away up and over the hill side.

Before the tunnel mouths were put into place the track-work was laid. The outside circle being 'Wrenn' with a passing siding behind the hills. The inner loop was laid with 'Triang' track on loan from different people. A set of points led to a short goods yard. The idea was to run goods and local passengers on the inside circle and main line passenger on the outside circle.

The tunnel mouths were next finished and work started on the town. It was placed between the lines and the hills. The buildings were simply pirated from Rex's layout and laid on the base boards. Streets and electric lights were then fitted to the scene. A crossing with gates led from the town to the main roadway, which ran along the entire front section of the layout. The road, complete with dotted line and white posts, took people's eyes.

One end of the layout had a vacant patch with an auction sign on display. Behind the sign was a quarry with shovel and bulldozer working. The other end of the layout had a large hoarding and a farm, complete with haystack made from binder twine. The pigs had their own sty beside the goods line. Upon the hill side was an old house with boarded up windows, a bow in the roof and some broken fence rails. Beside the house was a white horse and an old country style little house.



LEGEND

A	AUCTION SALE.
B	LINE OF POPLARS.
C	CHURCH.
D	GOODS.
E	CRANE.
F	PLATFORM.
G	GARAGE.
H	HOUSES.
I	OLD HOUSE ON HILL
J	FEED STORE.
K	STREET.
L	LEVEL CROSSING
M	5 SHOPS.
N	STORE.
O	ROAD OVER HILL.
P	PUB.
Q	HAYSTACK.
R	FARMHOUSE.
S.	STY.
T	HOARDING.
U	HUT.
V	TUNNEL MOUTHS.
W	HIGHWAY.
X	HIDDEN SIDINGS.
Y	RANGE OF HILLS.
Z	FENCING.

M.McK.

On the hill side roadway could be seen cars and caravans, with a grader working along the banks. The grader (Rex's work) was made out of card. Fencing along the lines and roadways was cut from old three-ply which had been left in the rain. Trees were mostly picked from a small type cedar pine shellacked and stained with dye. A few trees were also Merit plastic kits. The town water-supply was a tin mounted on old rocket sticks.

The layout was a huge success. By the third day of the display the crowds were terrific, with four days still to go. The layout was in operation between 2.0 and 6.0 p.m., and from 7.0 till well after 10.0 p.m. As you can see from the track plan it was kept simple and a good variety of locos, carriages and rolling stock was used to keep the public interested. Locos ranged from an 1862 "General" through various steam locos to present day diesels with rolling stock to match. A really popular feature was when the lights in the room were switched out and the locos ran under their own lights, with the street lights in the background. The layout is to be rebuilt for the next Christmas to New Year celebrations at Beechworth.

Sharing the room with us was a working model of a steam traction-engine made by Mr. J. Wadley of Beechworth; it was a really beautiful piece of machinery.

THE QUESTIONNAIRE

by JACK McLEAN

I have an unconventional approach to modelling. I imagine that the usual approach is to feel a desire to model something, to look for something to model, and then to decide on a railway and as a result to start to learn something about the railway so that it can be modelled! On the other hand curious people like me have been learning about railways for a good many years and at last, by a combination of available funds and suitable things to purchase, have been able to set up proprietary material in a lifelike arrangement on which we can plan and operate timetables and other prototype evolutions. For this reason it was a long time before I joined the AMRA and even then it was because I liked writing articles for the Journal. In these circumstances, you will realize how difficult it is for me to analyse the questionnaire - not that the questionnaire is difficult but that I am!

For instance, I am not at all sure what I expect of the State Branch, and the only way I imagine it falls short is in the matter of punctuality of meetings which in any case I only attend occasionally.

In view of my desire to avoid building anything myself if I can help it, I am obviously not interested in scale modelling and I do not find the standards helpful although I can imagine that many members do.

I always read both the "Buyers' Guide" and the "Journal" from cover to cover - usually the hight they arrive. I don't know what to expect of the Buyers' Guide exactly, but some day someone might want to know where to put a signal or might want to give away an antique timetable. The question about historical articles is a good one. I suppose that the dividing line between the appropriate and the inappropriate is whether the subject could be modelled. As far as my own articles, which are mainly historical, are concerned, I always try and indicate how this can be done.

Now with that pre-amble I will pass on to a study of the returns sent in by other members. I have tried to examine them all impartially much as if I'd been an outsider called in to collate the suggestions irrespective of whether the suggestion was known to be quite impractical, or had been tried unsuccessfully before.

The statistical analysis is based on the first 50 answers, by which time I was tired, but I think they are sufficient to show trends. The types of layouts operated are: 12 "OO"; 14 "HO"; 10 "O"; 2 "S" and 12 none. 36 are interested in modelling, 33 in track, 33 in rolling stock 39 in structures, 44 in scale modelling and 38 thought the standards useful. Only 18 of the 50 attend meetings although 24 thought the branch was O.K. Of the remaining 26, 19 gave no opinion of the branch, 5 said the branch was not too good, and 2 said maybe.

The State Branch falls short because of: The unwillingness of members to do a share, the lack of regular means of finance, the lack of club rooms, not enough visits and excursions, exhibitions, auctions or competitions and the poor quality of meetings caused by loss of control by the chairman, the waste of time on minutes and business, the high technicality of lectures, poor speakers, (faint voiced and unprepared) and the poor quality of refreshments.

While some members admitted they were unable to suggest or do anything to improve the state of affairs shown above, the following suggestions were received: A revised allocation of funds to branches by winning Tatts, starting a fund, selling debentures or increasing subscriptions; starting more local groups in suburbs, having working bees on colleagues' layouts,electing new chairman who should exercise greater control and looking after strangers and newcomers; having more action and less talk at meetings,explaining talks more carefully, using Nescafe and having a supper roster. Other suggestions included: Running our own hobby shop, introducing photo swapping and advertising more.

Of the Buyers' Guide, 44 thought it was good, 2 definitely the opposite and 4 qualified their approval. Its chief drawbacks were: Its lateness, its vagueness, its lack of "O" gauge material. It could be improved by indexing, stapling, more advertising, more reporters, giving addresses of shops for postal purchasers, although one member considered sellers' names should be withheld unless they paid, as for an advertisement.

Of the Journal 43 thought it good; 2 didn't and 5 qualified their remarks with comments such as "good when discussing models" or "articles too long with too much detail". There should be: Photographs, descriptions of layouts, more "meat", less of N.S.W., more Continental, less Continental, no Continental at all, a printed Journal. It should be more helpful to beginners and it should reprint articles from overseas journals. 35 want prototype articles, 5 do not and 10 are easy. On the one hand they are "all right provided they have a model slant"; on the other hand "those that want them can buy books".

30 want constructional articles (be it noted 5 less than want prototype), 8 do not and 12 are easy. Of the 30, it is "all right provided the articles are Australian", "all right if on scenery", and there should be "more on passenger stock". 19 want historical articles, 16 do not and 12 are easy. The qualifications are: "Provided they have a model slant", "provided they are short", "provided they are Australian" and "provided they appear in other magazines.

29 read all the Journal and those that do not vary from 10% upwards. The parts that are specifically excepted are: "Articles like the Rocket" "Maurie McKinnon's letters" (!), "anything Continental" and "the spaces between articles". 23 are going to write articles, 7 might sometime and 20 can't, or didn't answer.

Of service, those who had specifically asked for something thought it good. Some long standing members expressed surprise that there was any. The suggestions to improve it were: Put pressure on tariff board, show films on overseas railways, list the experts and the services offered regularly, include 'phone numbers and gauge of line to address lists, send renewals earlier, obtain discount for members, start a photo library, and report meetings in the Guide for the benefit of absentees. Most members agreed to introduce new members to AMRA, although with a few provisos, such as "ensuring prospective member is aware of what he will get for his sub".

That, readers, is it! I hope you enjoy reading this report and I fervently hope that you realize these are the suggestions of members and are by no means necessarily my own. I look forward to seeing some of them put into action!

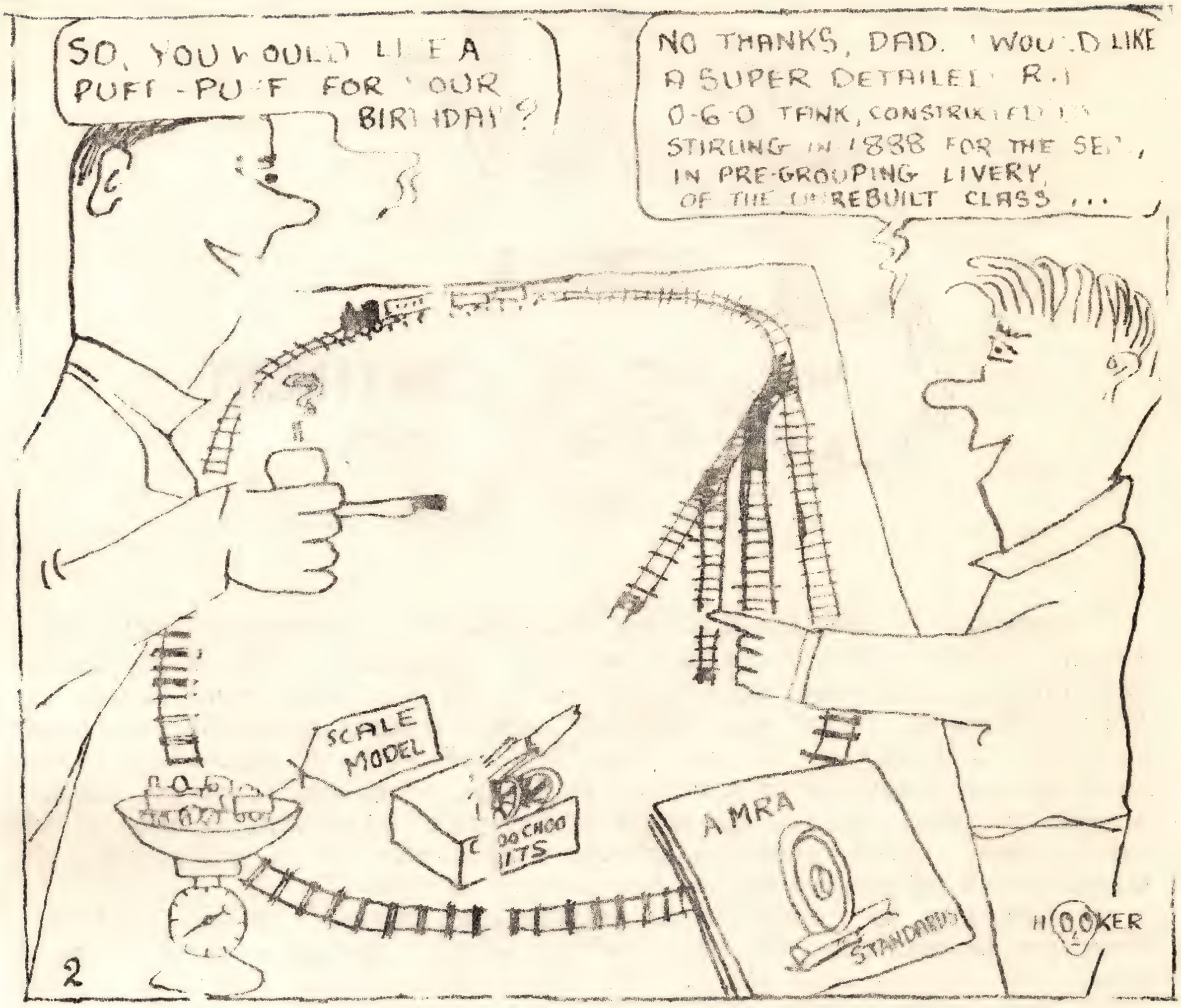
GREATER LUXURY FOR THE TRANS

Tourist class accommodation on the Transcontinental will be greatly improved by the introduction of the new Japanese rolling stock now coming into use. The new cars, besides giving more luxury and greater comfort, will also give more privacy. The sleeping accommodation in the old second class cars provided for four persons in each compartment. This sometimes made it necessary for families to split up and to mix into separate compartments while a newly married couple might have to share a compartment with others.

The new cars are designed to accommodate two persons to a compartment and thirty-six passengers to the car. The cars have zig-zag corridors similar to the present first class roomette cars, but have an additional berth which is lowered from the ceiling at night. Each compartment has its own wash basin with hot and cold water, and there are shower and toilet facilities at each end of the carriage.

The older air conditioned coaches are to be transferred to the Port Augusta-Maree section before next tourist season.

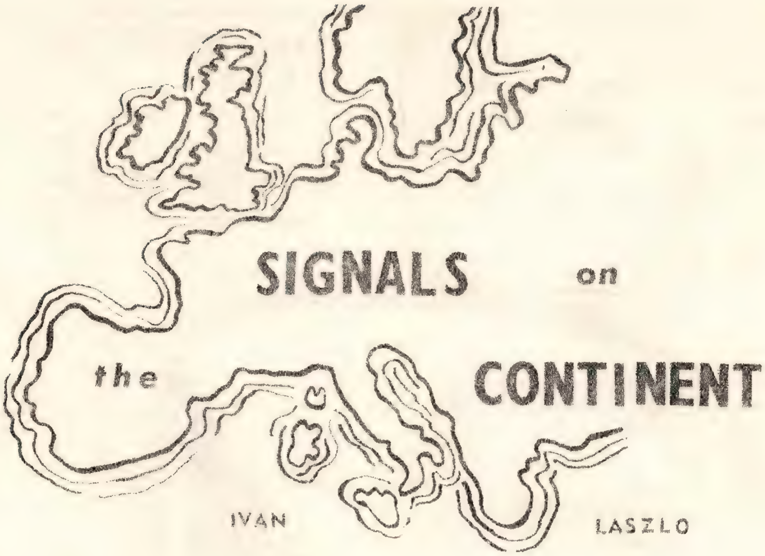
Broughton Boydell.


SO, YOU WOULD LIKE A PUFF-PUFF FOR YOUR BIRTHDAY?
NO THANKS, DAD. I WOULD LIKE A SUPER DETAILED R.1 0-6-0 TANK, CONSTRUCTED BY STIRLING IN 1888 FOR THE SER, IN PRE-GROUPING LIVERY, OF THE UNREBUILT CLASS ...
SCALE MODEL
OO CHOO
ITS
AMRA
STANDARDS
HOOKER
2

ORIENT EXPRESS

One of the most famous trains in the world, and one of the most favourite backgrounds for spy and mystery thrillers, the "Orient Express, is to cease running. Because through cars are so little used between Budapest and Bucharest the train will in future terminate at Vienna. From Vienna to Budapest the service will be maintained by an Austrian rail car. As the main portion of the train will terminate at Vienna there will be no reason for the use of the name "Orient Express", although the "Arlberg-Orient Express" will continue the Paris-Vienna-Budapest-Bucharest service.

The O.E. first ran on the 5th. June 1883 with a twice-weekly schedule from Paris to Bucharest via Munich, Vienna and Budapest, with a connecting train and steamer to Constantinople. Its consist was two four-wheeled baggage cars, two six-wheeled sleeping cars and a six wheeled dining car - all owned by "Wagons-Lits". After October 1883 bogie stock was used.



SIGNALS on the CONTINENT

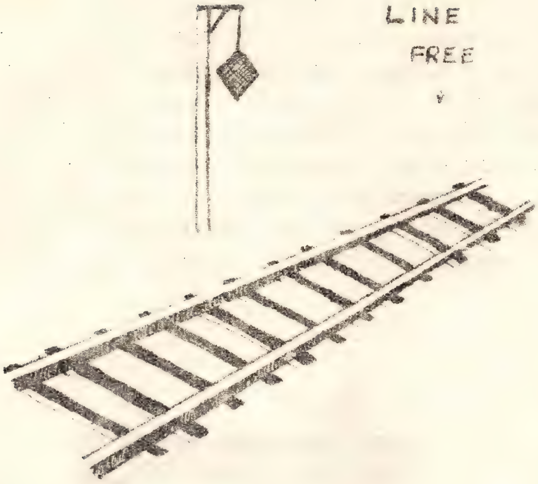
IVAN LASZLO

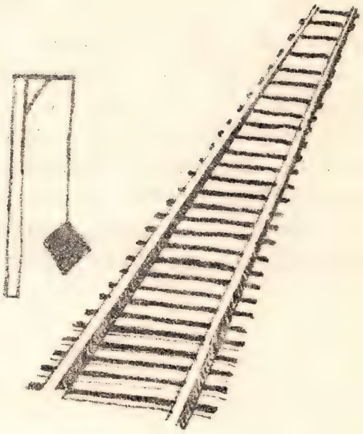
Whenever I read any English, Australian or American publication dealing with railways and they mention signalling, I am at once lost. Of course I understand the significance of 'Up' and 'Down' lines, but the positions of 'Home' and 'Distant', and the meaning of the semaphores is still a bit vague. Not that the "English" style of signalling is unknown on the Continent of Europe. In Italy, to my recollection, similar signals operate, but in the heart of Europe a signalling system of its own is used, based essentially on a very simple set of principles, although these principles may be new to most of you.

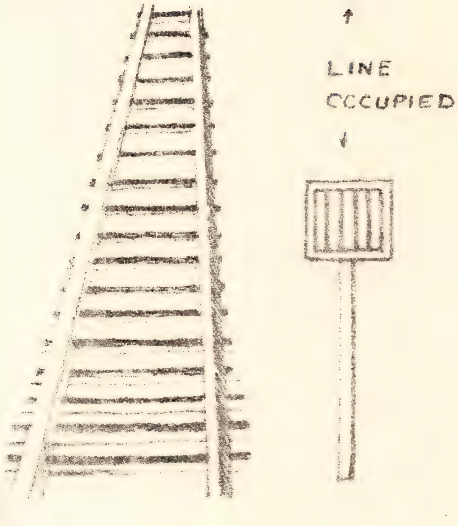
Signalling is a response to traffic conditions. On the Continent, there are essentially two kinds of signalling systems - one for branch lines, and one for main lines. The branch line signals are used on dead end lines, or those with only very light traffic where signalling still often follows last century practices. Indeed, in some cases the practices are reminiscent of the age when the line was built. There is little uniformity; I can even recall seeing the mid-nineteenth century "lifted ball" signal, which consists of a round reed basket which is pulled up when the train comes along to show the line is free. These signals are often on poles or masts a hundred feet high, and the basket has a lamp in it at night: no lamp - an obstruction: lamp shining - signal free; it is as simple as that, but don't forget, this is branch line practice.

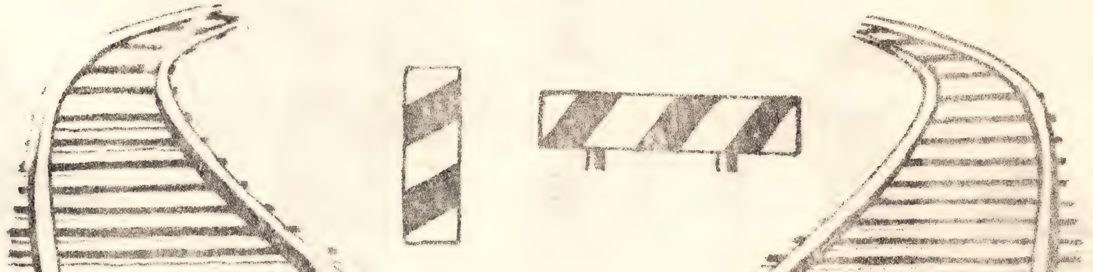
Sometimes we see a "tooting tablet". These are different in every country, indeed in every area, but usually they consist of a tablet of some form, or a milepost-like post, about six feet high and about three feet or so from the ground. Here the train has to whistle because ahead of it there is probably some sort of unguarded level crossing which must be warned, and at the leisurely speed some of the branch line trains travel this may mean perhaps another five minutes' journey.

On main lines the position is of course, different. Colour signals are coming into use, with their principal features related to the existing signal systems. Three colours are used: green for free section or block, red for halt, and yellow (not amber) for proceed with caution to the next signal. But the principal type of signal is still the sema-

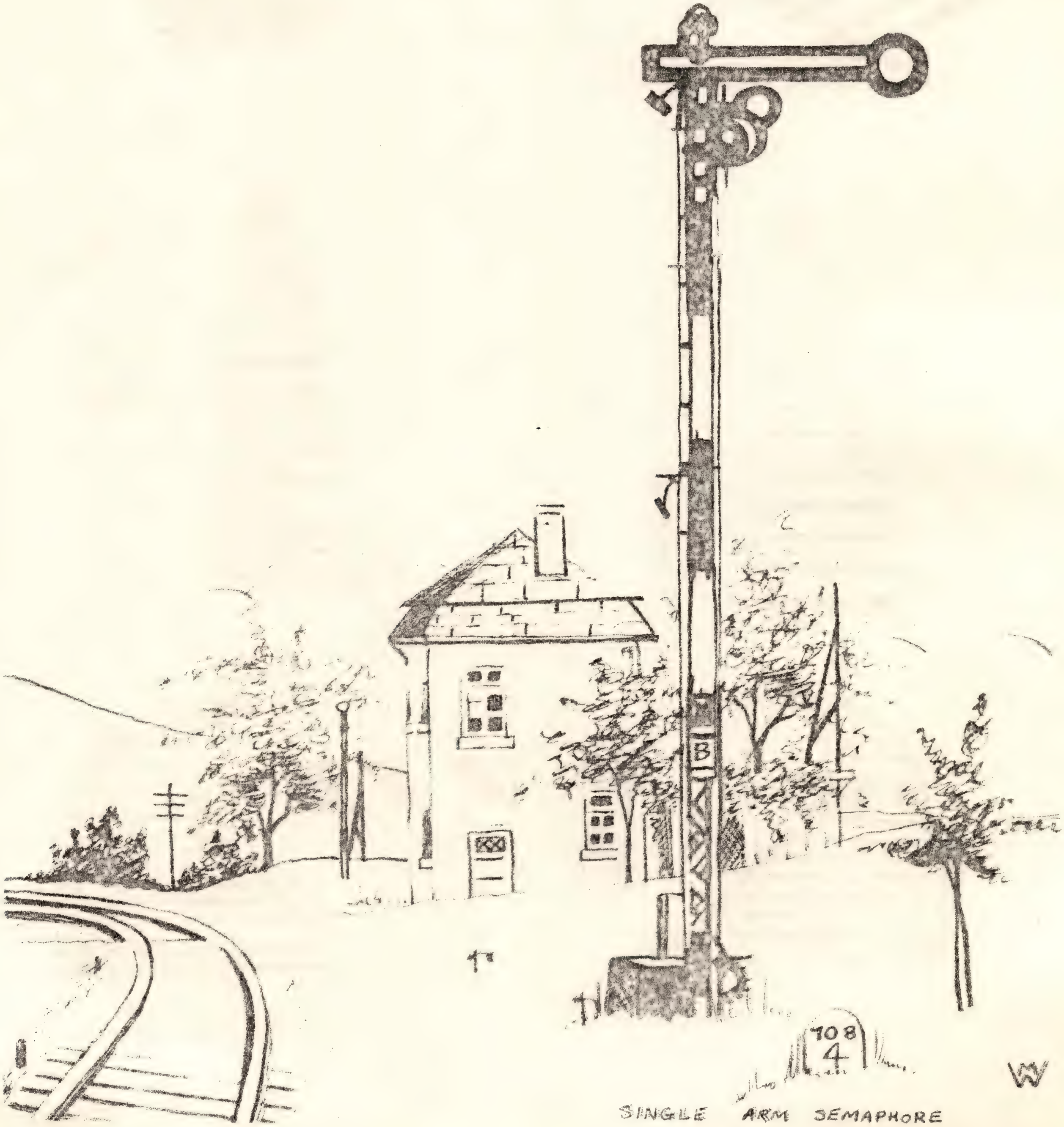

LINE
FREE




LINE
OCCUPIED

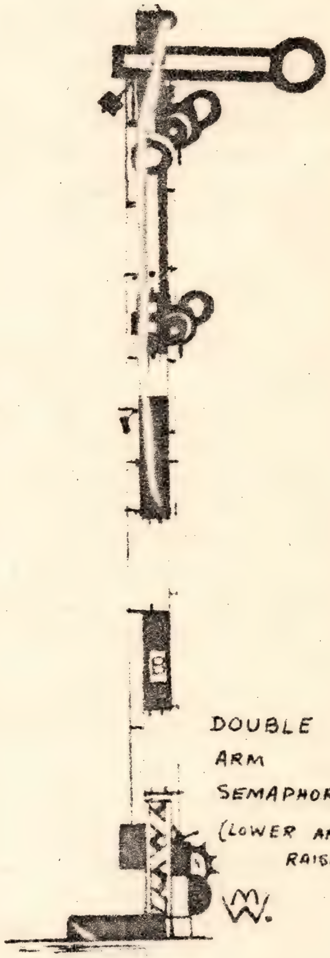


phore, which is often called a "main signal". This is a mast on which a semaphore stands at right angles; it is usually painted white or has a white top and red lower part. At the end there is a circle which is painted red or black in a white field. There are of course variants, but not many. When the block is occupied, the signal stands at right angles to the mast. Usually, but not always, the mast is directed to the outside of the track, but in some countries, such as in Austria, it looks inwards towards the track. The average height of the mast is often twenty metres or roughly sixty feet, so that the driver of a train can see the signal perhaps half a mile away. I recall hardly any short signals, except at main stations.



SINGLE ARM SEMAPHORE

The semaphore may have one arm, or more than one. This is important. If the arm is raised above horizontal it means that the block is free. If the lower arm is raised (because it is a secondary one it is in a secondary position), but not the main (or top) one, the train must pull into a siding at the next station; therefore when the main arm is in the halt position and the secondary arm is signalling "free") the train must pull into a siding at the next station and halt there. If both arms are raised, it means that although the straight line is free, the train must pull into the siding and clear the station but not stop. Sometimes, at major junctions or marshalling yards, there may be as many as four or five arms, each under the other. When this happens the locomotive driver can see immediately from the position of the arms which siding he will have to pull into. Supposing the third arm is raised and all the rest are stationary. This means that the third siding, switch or point must be traversed to obtain a vacant track.


DOUBLE ARM SEMAPHORE (LOWER ARM RAISED)

So far, we are on more or less familiar ground, but what comes next is not so well known. The fore-signal is, to my knowledge, never seen at all in this country. It is usually placed about a mile before a semaphore, and consists of a somewhat shorter signal mast, on which there is a round yellow circle, in a white field or in a narrow white frame. If the fore-signal is erect it means that the train has to stop there; if it is inclined against the train at an angle of about 45 degrees it means that the train can proceed but must pull up at the main signal, which means that it must slow down but can travel another mile or so; if the signal is completely flat, so that its face cannot be seen, then there is a free block even beyond the main signal. In this way there may be as many as two trains in one block, and each can travel independently of the other, although with the speed of each strictly regulated of course by the train order.

The fore-signal and the main signals are again forewarned by an ingenious system of visual reminders. These comprise four tablets, about one hundred yards from each other, preceding the signals. On the first tablet there is one black diagonal stripe in a narrow, upright white field; in the second there are two stripes; the third has three diagonal black stripes and the fourth is a cross, again black on a white field. This, in the case of fore-signals, is situated on the mast of the fore-signal, but in the case of semaphores may be about a hundred yards preceding the semaphore.

A train may not enter another block without passing through a series of fore-signals and a main signal. There may only be one semaphore in every block (in single line traffic there would be two, but at different ends, because the semaphore is in fact the entry gate into the next block) but there may be several fore-signals, depending on the length of the block, and on the terrain. I recall one location in the Carpathians, where there was one fore-signal on the up-grade, but on the opposite side of the track there were four because the down-grade was rather severe. There must be a signal before any major civil engineering work such as a major bridge or tunnel, and the bridge or tunnel may constitute a block, even though it is perhaps only a couple of hundred feet long.

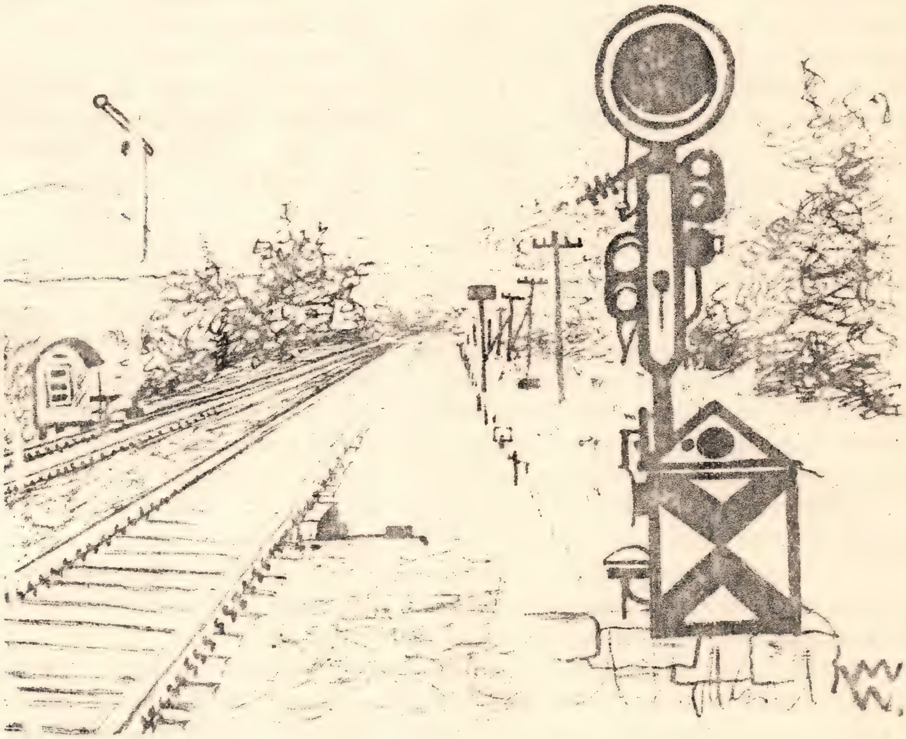
To take a practical example, this is what a train might actually do. We will assume that we are considering a mixed train, going from stations A to C, through B, and that it is followed by a faster train about ten minutes later; also we will assume that the country is hilly and that the line is well supplied with curves. Our mixed is given the number 3441. A mixed has a long number, with the odd numbers for Up trains (i.e. towards a division point) and the even numbers for Down trains (away from the division point). Mixed 3441 is followed by fast train (not an express), No. 641, and in the opposite direction the late express No. 88 may be entering the track, but where it is at the moment is not known.

Mixed 3441 is waiting in the second exit track; the first one is kept in readiness for fast train 641. There is a semaphore at the end of the track, just where it joins the point to the main. As it is the second exit track, it has a semaphore with double arms. On the main (the first exit) track there is only one arm on the semaphore. Just beyond the semaphore, where all the exit tracks converge, there is another semaphore with one arm only.

Both arms now rise on mixed 3441's semaphore. This means that she may leave as soon as the station attendant comes out and gives the signal. The attendant has a red cap, and has a little metal rod painted white with green stripes, and on the end of this there is a round metal circle, painted white with two green rings in it. The attendant consults his watch, and when the second is precisely at the time set for departure, he raises his flag-baton. At night, the flag-baton can be lit up, because it has a battery and a lamp in it. When the loco driver sees the flat-baton raised he may start off, after giving a whistle, which is in fact a "thank you", although he need not whistle, if it would cause some sort of disturbance elsewhere.

So mixed 3441 pulls out and passes the semaphore on the exit track. The next signal, which is the station exit signal, is perhaps a hundred yards away. There the signal tower guards the exit, and in some cases, the signal towerman may stand outside the balcony with a white flag to say that the block is free. The train orders have been given to station B and the train begins to roll. About half a mile from the station exit there is a fore-signal at 'half mast', meaning that the train has to pull into a siding at station B. The fore-signal is passed, and shortly afterwards a semaphore is seen, guarding the entrance of a viaduct. This is set on free line; so the train rolls on.

At the other end of the viaduct there is again a fore-signal and, to save expense, a semaphore on the same mast signalling line free. Three miles further on there is another fore-signal which is at 'half mast' and a semaphore which is down, so the train must stop. Why? We do not know; perhaps there is something wrong, or perhaps shunting is going on involving some of the main line track. Shunting at small country stations often takes place a couple of hundred yards up the mains, so as to avoid construction expense; this is indicated by a board beside the line saying: "no shunting beyond this point". After a few minutes the signal lifts, and mixed 3441 proceeds towards the next station signal which is a semaphore, and which has the second arm open. Again, this semaphore is built on the same mast as the fore-signal. The train pulls in to the siding, and stops before the exit signal which is down, that is, against the train



— A "FORESIGNAL" —

A few minutes pass, then thundering along comes the fast 641 which then stops on the main exit track. Very shortly it leaves and our 3441 waits. It has the signal against it, but uses the time detaching some goods vans and picking up others, using the escape track. Then a signal at the opposite (exit) end of the main track lifts, and shortly afterwards express No. 88 passes through fast without stopping. Another few minutes pass and the signal slowly rises for 3441. The man in the red cap comes out and gives a train order to the engine driver, then returns to the office; he comes out once more with his baton and raises it. Then and only then can 3441 get into motion.

At the far end of the station there is another semaphore with its arm raised, and 3441 rolls on to open line. There are four blocks in the next section, each with a fore-signal and a main signal. One fore-signal is about three hundred yards before a tunnel, and just at thetunnel entrance there is a semaphore. It is raised, and the train enters the tunnel. At the exit from the tunnel there is again a fore-signal, with a semaphore mounted on the same mast,and the train approaches station C.

Station C in a junction station and is awaiting several trains. The little mixed rolls in and is directed to the second entry siding. From there she goes on to the siding switch, but there the signal is against her, which means that she has to stop, with half her train still on the main line. Apparently something is going on. At the end of the siding a fussy little shunter moves out quickly, pushing a few coaches ahead of her. When the track is clear 3441 moves in.

As C is a junction station, the locomotive, even if not changed, must receive service, which means a visit to the shed. Constant maintenance on every line in Europe means that locomotives sixty to eighty years old can still provide valuable service, and indeed do so. In the mean time two shunters begin to reconstitute the mixed, leaving only the passenger coaches untouched, although sometimes they may be shunted too. The train is now getting much bigger - from the original station A she may have brought a few goods carriages only, mostly for Station C or for distribution from there amongst the branch lines. But from now on she will have a full consist of from twenty to thirty goods carriages,coming from all the branch lines and from the main line further along.

Shunting takes about forty-five minutes,then the loco returns, gets a new train order and a new number, and goes on a different and separate line. This time she is called 23341. After the arrival of some connections, a few of which are late and which she waits for,she gets a new train order and begins to move out as the exit signal lifts. This time the exit signal lifts four arms out of five. Instead of moving towards the main line, she moves up to a slip switch at the end of which there is a semaphore for the branch she is to travel on. She moves on to the branch line, and after a few hundred feet the nature of the road bed changes from smooth to rough, because instead of ballast there is now only cindered stone or gravel between the rails.

The branch line follows the main line for two miles. On the main line signals follow each other,and trains pass one another at high speed but the mixed has nothing, for it or against it, at this stage. Slowly it begins to edge a little higher, and then suddenly it crosses the main line by an overpass. At the end of the overpass there is a signal which looks like an inverted half globe, with a white edge surrounding a red field. It may face the train, or it may face the track. If it faces the train it means that the train must stop there; if it faces the track she may proceed.

This is of course a very simplified description of the signalling system in Europe, but perhaps it gives you the flavour which means difference. As the afternoon wears on, our train chugs away into the night with its cowcatcher in front of it, (yes, it has a cowcatcher because branch line locomotives with unguarded crossings need cowcatchers not only for catching cows but for motorists) and we see no more of it as it loses itself between the hills on the edge of the forest.

. . . .

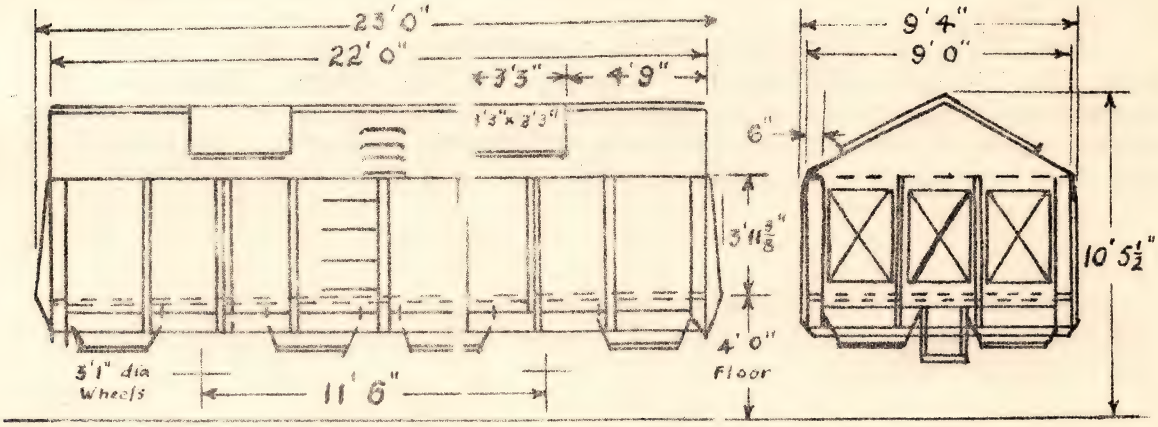
BUILDING THE N.S.W.G.R.

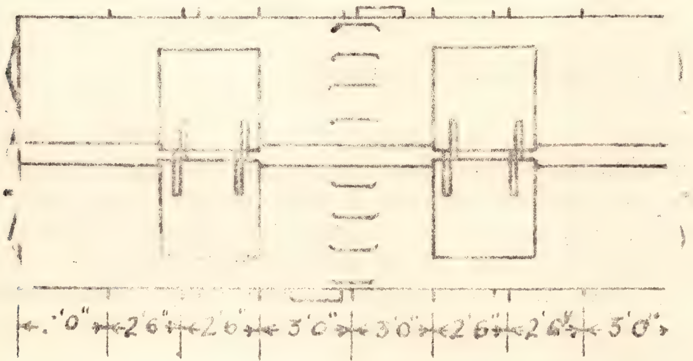
"RU" WAGON

by Keith Cutler

To construct the "RU", cut two pieces of tinplate 63 mm x 43¾ mm for ends. Measure 29¾ mm from the edge on each side of each piece and 1½ mm each side of the centre on top. Cut off the triangular portions so formed. Now mark out the portions to be dished. Cut off the top portion along the top of the parts to be dished, then proceed as for the "K" (see the February issue). Be sure the bottom portion is square before rejoining it to the top portion as it may have become distorted.

To make the sides and top, cut two pieces each 154 mm x 63 mm; mark a line 29¾ mm from one edge of each and fold it to fit the shape of the ends. Join these pieces to the ends, and use a piece of ⅛" channel (facing up) to fill the gap left at the top. Now fit the sides and ends to the under frame. Make four 3½ mm x 3½ mm angles to cover the corners and fit the angles to the sides and ends as for the "K". The second angle from each end actually consists of two angles facing, or a piece of ⅛" channel may be used.





RU Bulk Wheat Wagon.

JT 8·3·61.

The hatches can be made from two pieces of tinplate, one a little smaller than the other, with the smaller one underneath - or a piece of heavier material, such as copper or brass 1/16" thick may be used. Fit the hatches to the body, then add the hinges. The hinges are hinged in the channel piece. For loading purposes the hatches are swung open to rest on the opposite hatch. Complete the model by inserting a wooden floor and making hoppers as for the "U".

For some variations in the open wagons "U" wagons may be fitted with a timber support along the centre of the wagon, with a special tarpaulin and stencilled "CU". These were once used for bulk wheat. Also you could have "K" wagons, reduced to 20 tons capacity due to some defect and stencilled "KR LOAD 20 TONS". These have now reverted to U's and K's respectively. "U" wagons have also existed with the outer hopper door removed and the floor bolted down or replaced and stencilled "KC".

The water tank is mounted on timber bearers on a "K" underframe without floor. It may also be mounted on bearers in "K" or "U" wagons that have had all the doors on the floor removed. WT's are fitted with buffers and chains to permit marshalling on engines fitted with hooks. Lengthwise movement of the tank is prevented by four brackets inside the first bearer at each end and side movement by brackets near the second bearer. The side angles extend over the top of the tank. Lifting plates with eye holes are incorporated with these angles for lifting purposes.

Outlet is by means of a canvas hose (not shown) attached to a 9" diameter pipe on either side, the outlet being opened by pulling down on a rod (also not shown) attached to the higher end of the lever on top. This rod hangs at the side when not in use. The canvas hose permits watering of wayside tanks. When not in use it is attached to a hook on the angle. Also not shown on the diagram is a ladder fitted centrally on each side.

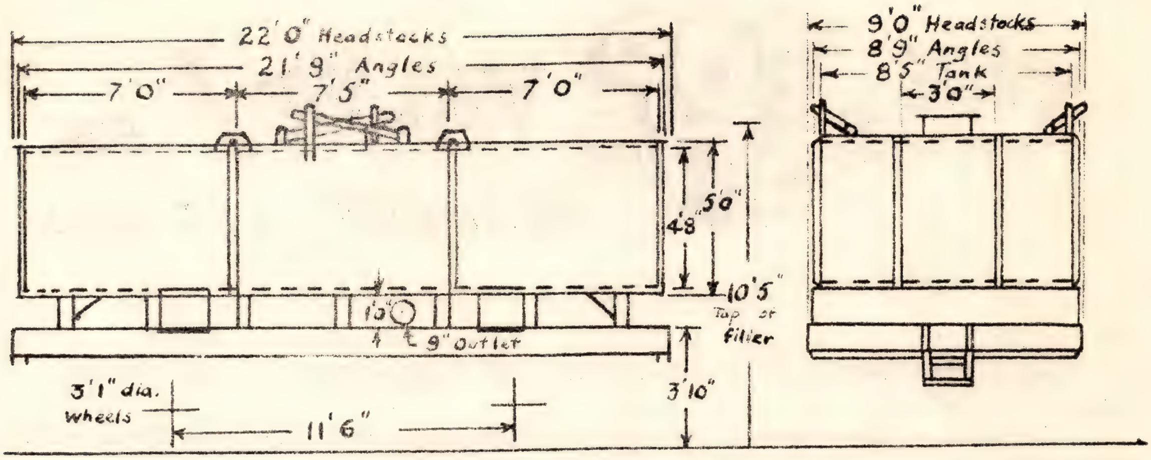
The "B" wagon is of all timber construction, with steel angles covering the corners, and steel strapping on the sides. They are auto-coupled and without buffers. They were used chiefly in the coal traffic as the style of the drop doors, only two-thirds the height of the sides, made them unsuitable for general traffic. All have been withdrawn.

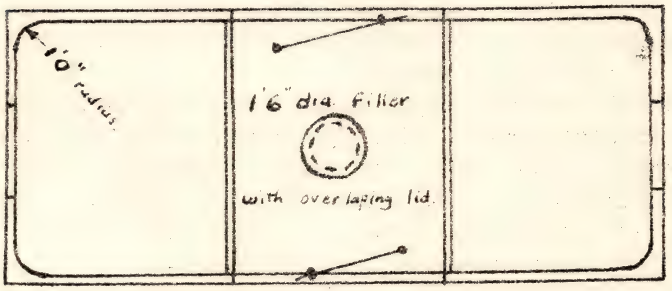
All measurements given in this article are for 'O' gauge, 7 mm to the foot scale. For the sake of convenience, however, the drawings are to 4 mm scale.

Editor.

VICTORIA'S TWENTY-FOUR WHEELER

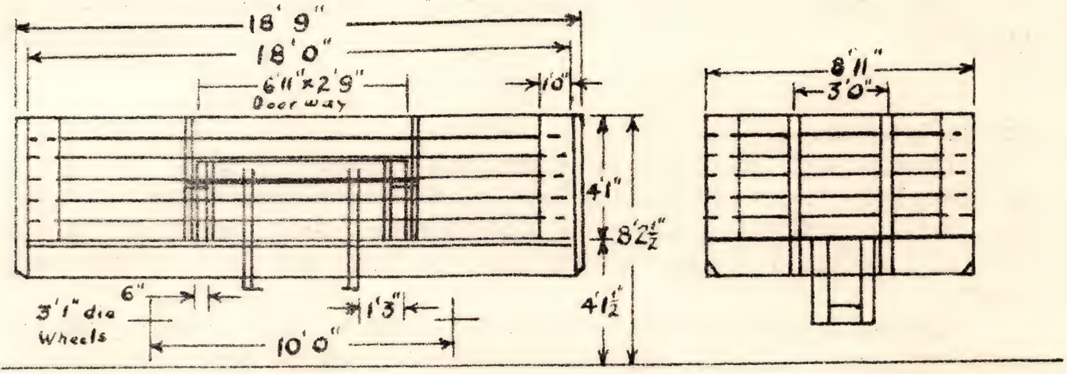
Queensland's sixteen-wheeler, described recently in "Journal, has recently been outclassed by a similar wagon developed by the V.R. having four six-wheeled bogies, articulated in pairs at each end. This wagon has a capacity of 150 tons and was designed to carry the giant alternator stators and other equipment for the new Hazelwood power station. The length of the wagon is 92 feet and it has a tare weight of 92 tons 8cwt

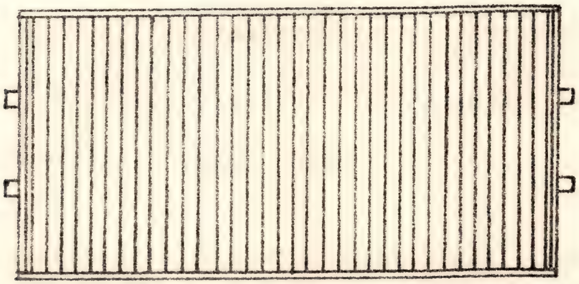




5000 Gallon Water Tank
Mounted on 'K' Underframe.

Note:- Tank may be m mounted in 'K' or 'U' wagons with doors removed.





'B' Wagon.

Timber Construction steel strapping.

Scale : 4mm = 1ft. JT. 8·3·61.

THE POP VALVE! FOR READER'S LETTERS

To the Editor:

Like Ivan Laszlo, my experience of Japanese goods has not left me happy with them.

Every now and again I bashed out something usually made from scraps from all sorts of odd places. The models were perhaps rough and the standards my own. I then discovered A.M.R.A. and decided to bring everything close to its standards which actually was not very hard till I started on several locos I had partially built.

I bought a four-wheeled loco leading truck which was supposed to be to N.M.R.A. standards, and therefore practically identical with A.M.R.A; it was also said to be two-rail. It will not pass through standard points as the back to back measurement of the wheels is too small. One wheel is insulated, and the other three are not. So much for two-rail; I will try to rectify it but with what success I do not know.

I next acquired a two-wheeled pony truck, again supposedly two-rail and to N.M.R.A. standards. Once more the back to back measurement is wrong but mainly because one wheel wobbles. It is a screw thread on the axle so that cannot be rectified and the article is a write-off.

In future I stick to Australian or English accessories.

11/2/61. Broughton Boydell.

To the Editor:

Edward Beal seems to have hit the proverbial nail on the head when he describes the attitude of some of the hard-headed members of the public, who describe the hobby of miniature railway construction as being a toy or plaything. Where indeed must we draw the line between models and toys?

Are we to assume that because some of the un-enlightened look at model railways in this way that we should regard models of buildings or a model globe of the world as toys? Perhaps a map or plan is only a toy in two dimensions.

Imagine the up-raised eyebrows if we went into a shop owned by one of these unenlightened persons and politely asked for a "toy of Victoria in 2D". They would regard us as being a little demented to say the least.

4/2/61 Frank Puls, East Preston, Vic.

That's the trouble, Frank, the "unenlightened" as you so succintly call them, do think we are demented, but what do you suggest we do about it?

Editor.

To the Editor:

I believe that the Federal Committee is considering a suggestion from Ivan Laszlo for a locomotive building competition. I have also heard that the Federal Committee is considering combining this competition with a request from the Commonwealth Railways for a display of model locomotives, which means in effect that the competition is being made one for models of C.R. locomotives.

May I, if the above information is correct, offer my objections to this limiting of the competition? Many of us who would be interested in the competition for loco building are not interested in Commonwealth types, and building a model of a locomotive that is of no use on one's own layout afterwards simply for the competition is a waste of time.

Instead may I suggest that the model entered be of any locomotive so long as it is of a prototype loco and not freelance, and is not a kit built model? Another separate section could be included for altered kit built locomotives. I would also suggest that the competition be extended to include passenger and freight rolling stock and structures as well and that the competition be made an annual affair.

4/2/61 Ern Raddatz, Woomera, S.A.

The Federal Committee has discussed Ivan's proposition and arrangements for the competition are in hand, although definite details have not yet been worked out. However, it is likely that the subject will be "any steam-outlined inside-cylinder tender or tank 0-6-0 locomotive, in any gauge, that has been or can at present be seen on any Australian railway". Entries will require to be scratch built except of course for motor, wheels, small boiler fittings etc. Watch out for further details soon. Editor.

To the Editor:

Recent letters on the rise and decline of the "Make it Yourself" men interest me, especially as it touches 'O' gauge. I think Dick Gutteridge has the solution in trying to find a group of members of similar interest and form a sub-group within A.M.R.A., even to the point of paying a little extra to keep our own group alive to look after our own particular interests.

As a large part of the "do it yourself" men are probably 'O' gaugers I wonder if it would not be worth while to encourage, say, just one shop in Australia to carry a full range of 'O' gauge accessories. Very few shops in Australia stock 'O' gauge parts and those that do carry very little, but if one man undertook the job I think perhaps he could give better service. As getting accessories so often means writing to half a dozen shops, could we have a special issue of the "Buyers' Guide" devoted each year to the 'O' gauge market? This guide could list recommended hobby shops and could give a list of kits and accessories carried, and what stocks are available.

I agree with Jack Makin that 'O' gauge material is hard to get but I feel the solution is to encourage someone to carry it or if it is to stay scattered to get a better means of advising one where it is. Provided the accessories are made available I feel that many more would hand build and I would strongly urge a group of our own within the association.

11/2/61. Broughton Boydell.

To the Editor:

The makers of 'Kleinbahn' model railway equipment, an Austrian firm specialising in very good quality goods at an amazingly low price, have a very novel way of ensuring that their long wheel-based four-wheeled stock gets around the sharp curves of a model railway. They have simply adopted the Grovers' bogie, and as the couplers are attached to the two-wheeled bogies the cars track like a pig in a chute. As, on the average layout, the viewer sees more of the roofs of the cars than he does the running gear the "Grovers' bogies" aren't so very noticeable. This idea of course can be adopted by modellers wishing to make models of long wheel-based four-wheeled rolling stock.

Ivan Laszlo is quite correct in his remarks regarding the length of the Continental rolling stock. Actually there is no standard length and wheel-bases can vary between 15 feet and 27 feet on goods stock, and on some four-wheeled passenger cars the wheel-base is even greater. I don't know if anyone has noticed that the wheels on Continental four-wheeled stock are much closer to the ends of the vehicle than is the case with British and Australian stock. No doubt much of the superior running quality of the prototype can be attributed to this fact.

Besides the two 'Peco' underframes there is another chassis available to the 'HO' and 'OO' modeller. This is the chassis from the 'Airfix' tank car. Don't worry about the surplus tank; it's surprising the number of ways a tank can be used on a layout, for water towers, fuel storage and so on. The main drawback with these three chassis however, for 'HO' modellers, is the distance the buffers are apart. This can be overlooked on most layouts which use some form of automatic coupler but on a layout using either three-link or screw couplers the different buffer spacings will cause derailments.

Incidentally several years ago there was on the market a British made 'OO' scale screw coupler in which the screw worked as on the prototype. Can anyone tell me, through the Pop Valve in case someone else is interested, if these couplers are still available and if so, where?

8/2/61 Ern Raddatz, Woomera, S.A.

To the Editor:

I read with interest the article on loco construction by Ivan Laszlo in the November issue of the Journal. This article should be a great help to many modellers who have been nervous of building a loco because of difficulties with the motor and frames.

In the article Ivan mentioned that the 24 mm drivers as used by 'Triang' are, as far as he can remember, only suitable for the old V.R. "S" Class Pacifics. There are, however, two other V.R. engines that use the same size wheels; these are the "A2" class, which are being scrapped as they become ready for overhaul, and the "R" class 'Hudsons'. All of these locos used 6"0½" driving wheels, which in 4 mm scale would be 24 mm.

28/1/61 Ron Farhall, Box Hill, Vic.

To the Editor:

I have been mistakenly credited with the authorship of the article "Sharpening your Gem Blades" in the 1960 index. Actually it was written by Allan Winslade.

9/2/61. Alan Templeman, Waverton, N.S.W.

To the Editor:

In almost every issue of the Journal the editor calls, quite rightly, for articles for inclusion in the Journal. But he has never given much in the way of details of what is required for a suitable article. Locomotive construction articles for example: Could they be for alterations of Triang locos from one type to another, including of course the fitting of scale wheels? Could they be about, say, the construction of a freelance (very freelance) Beyer-Garratt from 'Triang' parts? Could the construction article be about a foreign prototype (English, American or Continental) or does it have to be Australian? The same applies to rolling stock articles. Building construction articles: Could they be about the alteration of 'Airfix' and 'Faller' kits; or the combination of an 'Airfix' and 'Faller' kit; or the use of 'Faller' bits and pieces? I think the editor should tell readers and future article writers what he wants from them.

I am glad to see that the Journal is now using a photo on the cover although the first cover, that on the November 1960 issue, was not a success, but matters should improve in time. Now what does the editor want as regards suitable photos for use on the cover? What type of photos are required: prototype or model subject, commercial print or otherwise, what size of photo, glossy or matt and so on?

Pursuing the matter of the photos on the cover I would suggest that the Federal Committee looks into the possibility of using a different type of paper for the front cover, one that is more suitable for the printing of photos. If it is not too costly and a suitable paper can be found, could a page or two of layout photos be included in the Journal? Of course the cost may be too great and make such an idea impractical but if not, why not?

4/2/61. Ern Raddatz, Woomera, S.A.

'Smatterafact I thought I had provided a fair amount of information on what types of articles are required, but I can see that the subject really needs answering in some detail so I will write something for the Buyers' Guide as this number of Journal is just about full.

Regarding the use of photographs, the Federal Committee is considering the ways and means even now and I hope to be able to say something about that later. Editor.

To the Editor:

Firstly, as a comparative newcomer to the hobby, may I say that my association with it has been in the main a happy one. The members whom I have met, both in my own State and from other States, have invariably been most helpful and friendly. My dealings with various retailers have also been on a very friendly basis although most of my trading has been by mail order. However there have been some exceptions.

One retailer who advertises in the Guide has peculiar methods of doing business; he does not issue receipts for money forwarded (quite a substantial amount), he ignores letters written to him and he generally handles things unsatisfactorily. Another occasional advertiser in the Guide suggested that for the sum of 3/- modellers would receive a price list and brochure. I am 3/- out of pocket and that much wiser. On the other hand there are a number of Guide advertisers who go to no end of trouble to see that their customers are satisfied.

Another complaint I have is that the panel of experts should be revised and re-issued. I had a problem some time ago, so I wrote to the expert named enclosing a stamped addressed envelope. That "expert" did not even have the decency to reply. Common good manners should have ensured a reply.

While I am going, I think there is a mistake in the article on Track Construction on page 13 of the February 1961 Journal. The lead for a No.6 point in 'O' gauge is 12^{F}"not 15$\frac{5}{8}$" as stated, and for 'HO' is 166.5 mm, not 149 mm as stated.

However, in conclusion, I must say I am happy to be a member of AMRA and my association with it and the members I have met have increased my enjoyment of the hobby immensely. Those who are not members do not know what they are missing.

15/3/61. Jack Treacy, Rockhampton, Q'ld.

To the Editor:

I was watching a T.V. show last night - "Meet the Press" - where some cricketers were being interviewed; one of the things brought up was how a man could go out on to the field and do wonders, yet couldn't put his experiences down on paper, but had to leave it to "ghost writers" to do it for him. Perhaps there are a lot of modellers in the same boat which makes it rather tough on "Journal" editors. Anyhow I hope you will be able to use the article I have sent.

I can only admire the regular contributors, but have concluded they are either (1) born journalists (2) belong to only one club or (3) don't possess T.V. I hope the "Buyers' Guide" can receive enough encouragement to continue in its present style and keep to its publication dates.

I have just about finished the industrial spurs and marshalling yards at the Burwood Police Boys Club and am now finishing off a further twenty seven vehicles for them.

16/1/61 Norm Read, Strathfield, N.S.W.

To the Editor:

In his article in the November Journal Ivan Laszlo has mentioned the use of gear boxes and states these gear boxes are hard to obtain. The gear boxes he refers to are made by Sommerfeldt and are obtainable in Germany but as far as I know are not obtainable in Australia. These gear boxes consist of a worm and wheel enclosed in a plastic casing. The gear wheel is already mounted on the axle and the gear set may be obtained with 12 mm disc wheels already mounted or without wheels. Gear ratio is either 1:15 or 1:25. A power bogie may be made up by simply fixing two or more gear boxes at the required distances on a shaft and fixing a gear wheel to the end of this shaft. It is only necessary to mesh a 'Triang' Mk.3 motor to this gear and the power bogie is ready for its side frames.

In Germany these gear boxes are used very often on steam outline locos, using the idea outlined in the previous paragraph with ordinary loco drivers of the required size in place of the disc wheels. The motor, usually a Permo 15 or 18, is mounted horizontally in the boiler, facing to the rear, and a gear train of three or four gears is used to transmit the drive to the power bogie shaft, making in all a very powerful locomotive. Sometimes a rubber band drive is used instead of the train of spur gears and at other times, if a tank loco is being modelled the spur train is done away with and the motor is mounted so that its gear wheel meshes with the gear wheel on the gear box shaft.

The American firm of Kemptron makes a pair of gears of 1:1 ratio that could be used in a similar fashion although the cost of one dollar a pair makes them fairly expensive. Does anyone know of a source of supply in Australia of similar gear sets that could be used in the same way as outlined above?

4/2/61. Ern Raddatz, Woomera, S.A.

To the Editor:

It may interest readers of Jack McLean's articles, especially "On Small Termini", to know that many stations on our lines here in Western Australia consist of no more than his diagram (Figure 3) - a plain loop. For most stations the loop would probably only be big enough for perhaps half a dozen four wheelers, but an occasional one is lengthened for a passing loop, in which case the waiting train enters the loop either ahead or reverse and pushes any vehicles on the loop ahead of it. When leaving it usually draws them back to about the centre again. Very simple compared with many Eastern stations but quite effective and serves its purpose.

5/1/61. Broughton Boydell, Esperance, W.A.

To the Editor:

While Journal's article on "The Trans" states that in the "twenties" boiler repairs were higher than in the other states, it does not give any idea of the percentage. An article in the Port Augusta "Transcontinental" gives the figures in the 20's as N.S.W. 25%, S.A. 28%, W.A. 36% and The Trans - 87%.

Although diesels did not operate on this line till after the war, it was known when construction started that steam would not be very satisfactory. The first report of the Department stated that it was hoped that the internal combustion engine would be developed sufficiently to allow engines large enough to be built to replace steam. The reason given was the saving in water and the large amount of tonnage that would be released as a result.

Again in 1924 the Commissioner referred to developments abroad which may result in a more suitable locomotive for the unusual conditions experienced on the Trans. It was not till twenty-one years later that the Commissioner reported that an investigation had been completed into the desirability of replacing steam. In the same year, 1945, tenders were called for two diesels or diesel-electrics. The diesels have now taken over.

5/1/61. Broughton Boydell, Esperance, W.A.

NURSERY RHYME

Half a pound of axle grease,
Half a pint of oil;
That's the way the money goes,
Pop! goes the diesel.

RECORD REVIEW

Information on the gramaphone records of train sounds (see the Buyers' Guide - February issue)continues to come in and it is now possible to review three of the English and two of the American titles.

A3 PACIFICS: This consists of lineside recordings of the 'A' 4-6-2 locomotives of the former LNER, made at Peterborough, York, Durham, Hitchin and Retford. Trains are heard starting, often with much slipping, and at speed, when the characteristic triple beat of the three cylinder engines is unmistakable, followed by the "clickety clack" as each of the train's ten or twelve coaches goes racing by. Interesting incidental sounds of banking locos and loose-coupled stock shunting on sidings are heard and on one band we can even hear the songs of the birds as we wait beside the line for the train to come. This record is one that any modeller operating British main line stock should hear - gone for ever will then be those jack rabbit starts and stops we see on so many layouts.

CASTLES: This is a record of the former G.W.R. "Castle" Class 4-6-0 locomotives at work, sometimes from the lineside, and sometimes from the train as it climbs up the heavy grades from Newton Abbot to Totnes on its way to Plymouth in the West of England. Again there are interesting side-sounds, including station announcements, carriage doors banging, trains passing on the other track and much besides.

VICTORIA TO CHATHAM: Another first rate record. This time we are on the train all the way, drawn by former Southern Railway 4-4-0 Class E.1. (This incidentally is practically identical with the new Triang L.1). We reach the climax of the trip on the long nearly level stretch through Farningham Road in Kent, with the speed in the eighties. You can feel your armchair rocking as you listen to this one.

These three records are 10-inch long players at 33.

WHISTLES IN THE WOODS: This is a fascinating record, made in 1958 in the forests of California, Washington and Oregon and giving representative sounds of the vanishing logging railways of the Pacific Northwest. (Dick Gutteridge, are you listening?). We hear eight different locomotives of almost as many different types including a 2-6-6-2 Saddle Tank Mallet, some Shays, a Heisler, and some conventional 2-8-2's: but always it is the whistles - rising and falling in the woods, echoing across the gullies to accompany the music of the rattle of the wheels.

SOUNDS OF STEAM LOCOMOTIVES: We have heard No.2 of this series which provides a selection of typical sounds of Burlington 2-8-2's mostly at Lincoln, Nebraska. The C.B. & Q. locos are heard switching, taking loaded grain cars across town to the grain elevator, then returning with empties. On the other side of the record we hear a heavily loaded gravel train on an inter-city trip, and making big "stack music" about it too. We don't always hear the same locomotive, but the record makes a coherent sequence, and always it is a 2-8-2. On one occasion she stalls on the grade; on another she is assisted by a 4-8-2 when the two exhausts can be heard out of phase. Finally the train reaches the reception yards where the locomotive is uncoupled and runs to the roundhouse for preparation for its next trip. The record closes, as it began, with sounds of switching at the yards outside Lincoln.

Both these records are 12 inch long playing 33 r.p.m. discs.

A COUNTRY WORKSHOP

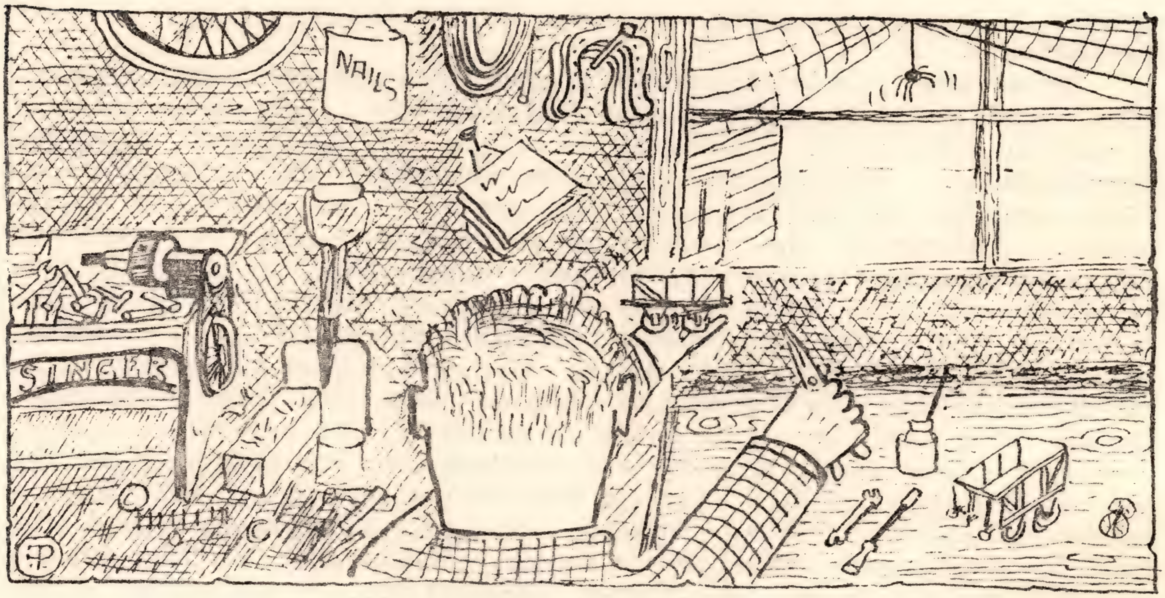
BY JACK MAKIN

Railway modelling in the country is, to put it mildly, somewhat more difficult than in the city. In the first place, there is the difficulty of obtaining supplies. In the absence of well stocked hobby shops, it becomes necessary to resort to the mail order system, which may become a most exasperating proceeding especially when, after having written to one dealer and waited a fortnight or so for a reply, it transpires that he is out of stock of the required parts! The lack of personal contacts with other followers of the hobby tends to throw the modeller on to his own resources, and compels him to solve many knotty problems alone. Finally, if his home is not connected to the power mains, or does not possess its own electricity supply, there comes the problem of a supply of power, not only for the railway itself but for the workshop.

My workshop is a weather-board building, only 10 feet long by 8 feet wide, roofed with iron and floored with concrete. Originally built as an amateur radio shack, it has in the course of time become a general farm workshop. This is something of an advantage, since tools, ostensibly purchased for the farm, often turn out to be very useful for model-making. Internally the place looks like a junk shop. Fragments of old radio equipment mingle with machinery scrap, while the floor is littered with old iron, boxes of junk and scraps of "useful" wood, to such an extent that only a few square feet of it are available for standing room. A bench littered with tools, tins of assorted screws and nails and often things, too numerous to mention, stretches across one end. Various other tools hang from nails on the walls, the general assortment providing a fair sample of wood- and metal-working equipment. From the model-making point of view there is the usual assortment of hand tools - hacksaw, tinsnips, drills, chisels, hammers, files etc., such as are found in almost every modeller's workshop. There are, however, in addition to these, several hand-worked "machine" tools which may be of interest to readers.

First comes a grinding-wheel, useful not only for grinding and sharpening drills, chisels etc., but also for removing unwanted metal from model parts. Next to it comes a bench drill. This is a really useful machine. It consists of the working portion of a heavy hand breast-drill, mounted on a frame which slides up and down on a steel pillar, the whole being mounted on a plate screwed to the bench. The drill is depressed by a lever and returned by a spring, and a locking screw allows the whole assembly to be moved up or down the pillar as the work requires. The chuck will hold jobber's drills up to $\frac{1}{2}$" diameter. An accessory is a small vice which rests on the plate and can be clamped in place if necessary. It serves, of course, to hold work which is being drilled. Its advantages over the hand drill are considerable. Greater pressure can be exerted on the larger drills, while the absence of wobble lessens the risk of breaking small ones.

Last, but not least, comes the lathe, but let me hasten to inform you that it is not one of those massive contrivances seen in motor garages, which will do almost anything but talk! On the contrary it is less than fourteen inches long, and is of the make known as "Adept" and sold, at one time at least, by the Hobby Shop, Adelaide. In default of an electric motor to drive it, I have mounted it on a wooden frame, with a treadle and pulley. Despite its limited size and low price (about £16 when I bought it) it has a wide range of applications. The headstock mandrel may be fitted with either a catch-plate for turning between centres, or an excellent four-jaw independent chuck, with reversible jaws. The tailstock may be set and locked in any position on the bed, and final adjustment made by a barrel screw. The tool rest is almost fully compound, allowing cuts to be made at a variety of angles. It is moved along the bed by a hand screw. Quite a variety of small work can be done on it, with a good standard of accuracy. I have never tried, but have little doubt that it would perform all the turning jobs necessary to the construction of a small steam-engine. Half a dozen assorted tools are part of the standard equipment.



Outside the "machine-tool" category, a very useful item, not, perhaps, common in workshops which have electricity laid on, is a pint-size blow-lamp, used for heating soldering irons and for sweating pieces of metal together with solder. Bought about fourteen years ago it is now rather black and battered, and the handle is tied on with wire, but it still works quite well.

I would like to be able to boast that, in this workshop, and with these tools, I have produced work which is the admiration of all who see it, but, alas, that is not the case, and my few and modest results have been achieved more by pig-headed persistence than by artistic application.

BOOK REVIEW

by Frank Puls

"THE HISTORIC LOCOMOTIVE POCKET BOOK" - by H.C. Casserley

If you have that remarkable little wealth of information "The Dumpy Book of Railways of the World", here is a similar type of book concerning British locomotives; engines which go back beyond the "Morning Star" to the last steam loco "The Evening Star". About 250 pages crammed with information, numbers and photographs are there, although some of my favourites are left out from lack of space.

The story of the only survivor of the Tay Bridge disaster (North British locomotive No. 224) is related in a condensed form; so also are the different American engines which found their way on to English tracks in the 1900's. (Freelance workers take note!). "The Decapod", "The Stirling Single", "The Dean Single" and many other famous engines are described therein.

The book may be purchased from Collins Book Shop, 86 Bourke Street, Melbourne, or the Technical Book Shop, 295 Swanston Street, Melbourne - price 14/3.

"THE FESTINIOG RAILWAY" 1800-1959 by J.I.C. Boyd
THE OAKWOOD PRESS - TWO VOLUMES

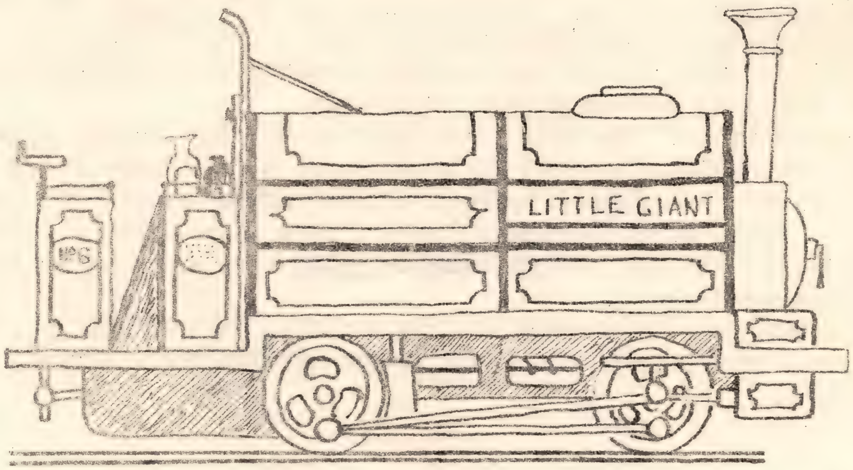
In this book we take a journey through space and time and visit a quaint two foot gauge railway in the mountains of North-west Wales.

Much has been written, which is of course understandable, for indeed much has happened, since steam locomotives replaced horse drawn traffic in 1863. That year saw the introduction on to the Festiniog Railway of four 0-4-0 locomotives, their order of delivery being: No.4 "Lord Palmerston", No.3 "Mountaineer", No.2 "Prince" and No.1 "Princess". They were tank engines with coal tenders fashioned from slate trucks, and despite expert opinion beforehand these little engines were a huge success. So two more were ordered and delivered in 1867: No.5 "Welsh Pony", and No.6 "Little Giant".

These engines differed slightly from the previous four, being saddle tanks with a slightly longer wheel base, to mention only two improvements. Three of the previous engines were later converted to saddle tanks and parts were interchanged freely. "On at least one occasion one engine was noticed running about with one pair of spoked wheels and one pair of disc wheels" writes the author.

At the present time (1959) No.1 "Princess" is awaiting rebuilding No.2 "Prince" has been rebuilt and is at present running. No.3 "Mountaineer" was badly damaged in 1879 and has subsequently been used as a source of spare parts. No.4 "Palmerston" was worn out in 1955, and parts of it were used in rebuilding No.2 "Prince". No.5 "Welsh Pony" is awaiting restoration, and No.6 "Little Giant" was broken up in 1936.

Two of the Fairlie type survive, namely No.3 "Taliesin" (formerly No.11 "Livingston Thompson") which has been restored and is running at present, and No.10 "Merddyn Emrys" which is at present awaiting restoration. These Fairlie types were introduced in 1869 and were found to be ideal for the narrow gauge line with its tight curves. The Fairlies did not have the tendency to "shoulder" when pulling on the inclines, a habit which was noticeable with the short wheel base 0-4-0 saddle tanks,



* A SKETCH BASED ON A MAKER'S PHOTOGRAPH OF Nº6 "LITTLE GIANT" AS DELIVERED TO THE FESTINIOG RAILWAY IN 1867. ALTHOUGH THIS LOCOMOTIVE WAS BROKEN UP IN 1936, IT'S SISTER Nº5 "WELSH PONY", STILL SURVIVES AND IS AT PRESENT AWAITING RESTORATION.

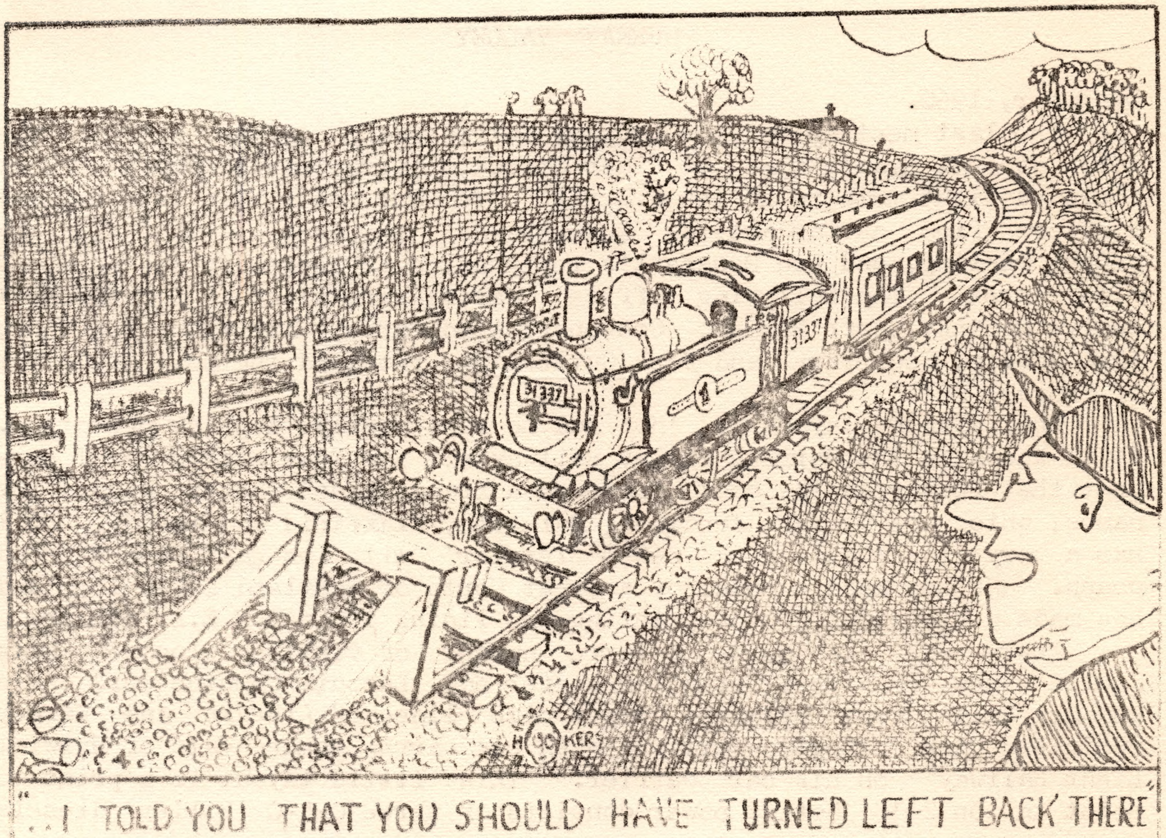
* NOT STRICTLY TO SCALE

an added feature also being that they could run in either direction with equal ease, thus saving time in turning them at the end of the line. However, they were turned from time to time to equalise wear on the flanges.

Now to describe these Fairlie locos: Two boilers are mounted back to back on the chassis, leaving room in the centre for a type of open cock-pit or, as in later improvements, a closed cab. The eight driving wheels mounted on two bogies and flexible pipes carry the steam from the boiler to the wheels. This unit in fact is two locomotives mounted on the same chassis sharing only the cab between them. It is also interesting to note that they never puff together except perhaps for a second or two, to quote from the book, and that the firm who built these engines from the Fairlie patent gave each unit two works numbers.

But this is only a small sample of the things in store for you when you open this book. Historical photographs, drawings and descriptions of locomotives, rolling stock and track are there, as well as some makers' photographs of some of the locos as delivered to the Festiniog Railway. Although some may consider these books a little expensive, if one buys books by weight instead of by the content, this writer at least is more than satisfied with his purchase.

Available from The Technical Book Shop, 295 Swanston Street,
Melbourne.
Vol. 1 1800-1889 Price: 49/9. Vol. 11 1890-1959 Price: 55/4.



"..I TOLD YOU THAT YOU SHOULD HAVE TURNED LEFT BACK THERE"

BRANCH REPORTS.

NEW SOUTH WALES

Our January meeting was held at the home of Jack Grierson of Earlwood. Fourteen members arrived plus one visitor, Maurie McKinnon, from Melbourne. Later, Don Paterson of Asquith invited Maurie and some others out to his home to view his layout.

At our Annual General Meeting on 11th February, which took place at Norm Read's home, Bruce Lovett was elected President, Frank Maxwell Vice-President, Harold Warren Treasurer, and myself Secretary. I would like to thank the retiring President, Ted Gray, for doing a really good job.

This year we plan to hold auction sales at our March, June and September meetings; ten per cent of the proceeds will go toward the Branch funds. Also, in October, we shall be running a week-end trip to Wollongong, staying at one of the motels. Additional future plans include a picture night in June to which members may bring their families and friends along.

Syd. Lothian.

MURRAY VALLEY

December, 1960.

The last meeting of the Murray Valley Branch of the A.M.R.A. was held at Phil Ryan's home at Piper Street, Yarrawonga. Those present included eight members of the A.M.R.A. from our own region and several visitors from as far away as Queensland. The meeting was also the annual meeting, and Lou Doussett's resignation as Secretary was accepted with regret. The following office bearers were elected for the next twelve months: Geoff Barnes, Convenor; Alan Carey, Assistant Convenor; Llew Joslin, Secretary and Dick Gutteridge retained the post of Editor of "Border Bull".

Phil Ryan's layout is 'HO' and he runs mostly English prototype. It is known as the Darragh Valley Railway and has four stations. I suspect that Phil read the book "Love on a Branch Line" when he chose the names, which are Darragh Junction, Dalkeith, Flaxfield and Arcady. Phil has a very nice model of an 0-6-0 "Terrier" with its gay four-wheeled coach. He has made a model of a Great North of Scotland 4-4-0 loco and has made a beautiful job of painting and lining it in L.N.E.R. colours.

There was also quite a large number of visiting locos. Llew Joslin's new GP9 with a Carnation Reefer and Laconia Combine were there and Reg Smith from Brisbane had a nice line of Athearn and Varney vehicles. Dick Gutteridge arrived with his narrow gauge "Vale of Warwick Light Railway" on his car carrier. This little layout is a point to point in 'On $2\frac{1}{2}$'. Motive power consists of three 0-4-0 'Biller' diesels driven by clockwork. There is a large variety of rolling stock which is concerned with stone and timber traffic. In theory it meets his larger 'O' gauge Layout ("The Crooked Creek") at Haunted Hills.

An excellent time was had by all present and Mrs. Ryan supplied a really beautiful afternoon tea. As usual the time went too quickly and it was soon time to depart.

March 1961.

The quarterly meeting of the Murray Valley Branch of the AMRA was held at the home of Alan Carey at Wangaratta. Nine members of the Murray Valley Region were present.

During the meeting the question of a small portable layout was introduced. There have been several requests for a working layout, from several different towns. It was decided after much discussion that a small layout be made and displayed at Wangaratta on 28th and 29th April. This was left in the hands of the Beechworth members as they had already built a model railway for exhibition use.

Alan Carey's layout is at present about 8' x 6'. It is of Marklin construction having both overhead pick-up and steam and diesel roads. The design, taken from the "Marklin" catalogue, is double-tracked with reverse loop and sidings, the centre area being occupied by a "Marklin" turntable and engine shed. Alan just about has the full range of "Marklin locos and rolling stock.

John Kerr had some beautiful hand made box cars on display as well as some beautiful "Fleischmann" locos. Bert Elliott of Yarrawonga displayed a "Kitmaster" 'crocodile' which was powered by flexible drives to all twelve driving wheels, the wheels being driven by a jack-shaft coupling. Dick Gutteridge's "O" gauge models made the "HO" equipment look small.

At about 4.0 p.m. we all adjourned to the home of Robert Szikla; his layout is 10' x 10' and double tracked throughout. At present it is incomplete, but when it is finished it should really be something worth seeing.

After a very delightful supper by Mrs. Carey a few colour slides were shown of the train wreck at Bowser (June 1959) and some of the Exhibition held at Beechworth last Christmas.

Llew Joslin.

HANDIKINKS

Holes may be drilled quickly and cleanly in lead with a twist drill by putting a pinch of crushed candle wax in the start of the hole after centreing. Clear the drill of cuttings - when necessary - in the usual way and use a fresh pinch of wax before resuming work.

Small drills may be hardened by holding the point of the drill in a gas flame until it is red hot and then dipping it quickly into tallow placed in a shallow tin. If the drill is over 1/16" in diameter move it once or twice into unmelted tallow.

STOP PRESS!!

As I am able to get a look at the pre-type of Journal at least a month before it is printed, I can take this chance of replying to a few questions put by Ern Raddatz regarding cover illustrations and the use of photos. The photo used on the November cover was the first time I had ever had to print one, and I feel that a lot of the fault was mine in not advising Gestetners to half-screen the job. Surprisingly enough, the two illustrations used for 'The Trans' were photos of illustrations, and these reproduced considerably better. The main reason for this, I feel, was that there was not nearly as much solid black. Photos do best with none, or very few areas of solid black. Unless we increase our subscription pretty solidly, we are stuck with duplicating as a method of reproduction, so we have to iron out the kinks for that method.

Now, a different type of paper; well, yes, that could be managed, but the use of any other type means that the job has to be interleaved, and that, quite frankly, is a terrible job. Still, if anyone cares to do the interleaving, I'm prepared to give it a go; just a word of warning though, the cover goes through the duplicator four times, so that will mean four nights in a row for the volunteer interleaver!

If the members can put up with a bit of mucking about until I can get the hang of duplicating photos, I feel we should at least have a few more attempts to get a good reproduction, and will be glad to have a go at any photos sent down. As to the requirements, our page size goes to $6\frac{1}{8}$" with the August issue, so any photo should not be any wider than that. The subject, preferably, should deal with railways, and as mentioned above, should not have too much solid black area. AMRA possesses a pretty good duplicator, and with some more experience, I should be able to give it a go to the stage of reproducing layout photos. If we could get one $6\frac{1}{8}$" by 9", I'll pay for the stencil myself, so there you are.

9/4/61. Tim Dunlop.

SCHEDULED NEXT ISSUE.

The most noteworthy feature of this little paragraph is that in our next issue new authors are responsible for a substantial proportion of the reading matter. Pause for three hearty cheers from the editor. So we have pleasure in announcing another contribution from Frank Puls, whom you met for the first time in this issue, entitled "Starting the Layout" while Cedric Rolfe treats us to an account of his established system, the "Candemah Valley Railway".

For those who are electrically minded and know which end of a wire is which, Alan Dowel has sent us "Automation on Your Railway" while for the students of train movements we have an interesting account of a "Four Train Cross at Clunes". No one has yet sent us any rolling stock plans, but who knows, the artwork for "1251 in 3/16" scale" or "Watch out for Trams", promised you long ago, may be ready to supply this deficiency.